Jazz Improvisation: Differentiating Vocalists

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ABSTRACT

Improvising jazz musicians have long observed that vocalists differ from instrumentalists. A formal acknowledgement of differences has not yet pervaded jazz education. Little, if any, accommodation is made for the unique attributes of voice students. Instead singers are instructed to act more like instrumentalists in order to correct a perceived lag in vocal jazz improvisation achievement. The approach fails to recognise that giving vocalists and instrumentalists the same tuition is unlikely to produce the same results when fundamental differences exist prior to instruction. A thorough exploration of the vocalist’s characteristics must precede any logical attempt to address the imbalance in achievement outcome. Consequently, this thesis addressed the research question, “How do improvising jazz vocalists differ significantly from their instrumental counterparts?”

The research began by examining and collating the wealth of existing citations of differences found in literature. Thirty-seven perceived differentiations of vocalists were identified and used to provide a preliminary benchmark for the investigation. A two-phase mixed methods study was then designed to explore the nature of each differentiation. Phase one employed a quantitative, anonymous, online survey of 209 Australian jazz vocalists and instrumentalists, investigating their perceptions and experiences of jazz performance and education. The computer program PASW was used to conduct chi square analysis of the datum to determine statistically significant differences. In phase two, 22 qualitative interviews were conducted with Australian jazz vocal performers and/or jazz educators in Australian tertiary institutions. The computer program NVivo was used to assist the organisation of data for thematic analysis by the researcher. A side-by-side presentation of quantitative and qualitative data facilitated comparison and enabled clarity in identifying congruency in the findings. Discussion integrated results and extrapolated meaning.

The study found that vocalists differ significantly from instrumentalists in five primary categories: 1) Motor feedback, 2) verbal capability, 3) embodiment, 4) music learning experiences, and 5) role. Within the primary categories, several subcategories were also identified. Differences were experienced in motor feedback in its utilisation, the role of audiation and conceptualising pitch. The verbal capability of singers created unique
experiences in relinquishing lyrics and implementing scat syllables. The housing of the vocal apparatus inside a human body created experiences of the organic instrument, personal representation and a performer-audience relationship expectation. Music learning experiences brought to the foreground differences in familiarity with referents and procedures, approaches to self-directed music practice and opportunities to develop improvising skills. The perceived role of jazz vocalists distinguished singers as experiencing more emphasis on the role of performer and less emphasis on the role of improviser. Additionally, some subcategories in the findings were shown to interconnect with those from other primary categories.

This thesis makes a significant contribution to jazz education by responding to the demand by researchers for knowledge on the differences between improvising jazz vocalists and instrumentalists. It dispels the faulty assumption that vocalists are the same in nature as instrumentalists and provides evidence of how the unique attributes of singers distinguishes them as a distinct subgroup of jazz musicians. This understanding is essential before any reasonable attempt can be made to address the perceived lag in vocal jazz improvisation achievement. From this foundation, future researchers can independently test each attribute for scope and impact and then build upon them educational programs and resources that are more appropriate for jazz vocal improvisation students.
STATEMENT OF ORIGINALITY

This work has not previously been submitted for a degree or diploma in any university. To the best of my knowledge and belief, the thesis contains no material previously published or written by another person except where due reference is made in the thesis itself.

Wendy Louise Hargreaves
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RESEARCH OUTPUT GENERATED DURING CANDIDATURE

Refereed Journal Articles


Book Chapters


International Conference Presentations


National Conference Presentations

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Chapter 1: Introduction

Musicians have observed frequently that jazz vocalists differ from jazz instrumentalists (e.g., Berkman, 2009, p. iii; Cooper, 1992, p. 8; Dahl, 1984, p. 124; DiBlasio, 1996, p. 35; Lapin in Greenagel, 1997, p. 40; Lincoln in Pellegrinelli, 2005, p. 421; Pressing, 1988, p. 135; Wadsworth-Walker, 2005, p. 180; Waldron in Grime, 1983, p. 81; Weir, 2003, p. 54). An acknowledgement of differences however has not pervaded jazz education. Efforts to equalise a perceived lag in vocal jazz improvisation achievement often assume the form of teachers urging singers to be more like instrumentalists (e.g., Aitken & Aebersold, 1983; Berkman, 2009, p. 1; Coker & Baker, 1981; Weir, 2003, p. 54). The approach produces an elementary conflict where jazz educators teach vocalists in the same manner as their instrumental students, yet suggest indirectly that they are not the same.

The contradiction is typified in an article by prominent jazz educators Gene Aitken and Jamey Aebersold (1983). In it the authors compare the status and achievement of vocal jazz improvisation students in high schools and tertiary institutions with that of instrumentalists. Vocalists are reported to be trailing. The solution proposed by the authors is for educators to implement “an instrumental approach” where singers undertake “the very same preparation and practice that the instrumentalists go through” (p. 8). The remainder of the article offers guidance on how this is to be achieved.

Close examination of the text, however, reveals contradictions that suggest in practice the recommended approach is not “the very same” after all. For example, singers are instructed to spend time considering their selection of scat syllables to avoid an “unflowing, angular, non-musical sound” (p. 9). The practice strategy seems irrelevant to
instrumentalists who, for example, have a saxophone in their mouth. Vocal students are told they “should be mentally thinking of the keyboard” (p. 9) which is unlikely to be a directive frequently given by instrumental teachers to their piano students. And, why indeed would “vocalists need to sharpen their ears almost to a degree sharper than the jazz instrumentalist” (p. 8) if their preparation needs are identical? Furthermore, some statements in the article place possible differences in the vocalist’s and the instrumentalist’s experience directly in opposition. For example, the authors write, “An instrumentalist has to think, ‘I’m in the key of A, what is the #9?’ Whereas singers, once they learn the sound, can pick it up quickly” (p. 9). The juxtaposing appears again in another paragraph:

> An instrumentalist can push a button, key, or string, and pretty much know a certain note is going to come out. But a singer, when they start to sing, doesn’t really know what note is going to come out unless they have perfect pitch or have practiced ear training. (p. 8)

The final result is an article that recommends in principle that vocalists adopt the “very same” approach yet includes enough caveats that the logic of the argument becomes questionable. It seems unlikely that adopting identical practices will be the simple solution to comparable achievement, given that voice and instruments are differentiated frequently. In essence, the equal treatment of students seems unlikely to produce equal results when fundamental inequities may exist between the two prior to instruction.

The subtle contradictions evident in the Aitken and Aebersold article encapsulate a problem that has continued to affect vocal jazz improvisation education. Efforts to correct the perceived lag in vocal improvisation achievement do not consider the existence of possible differences between singers and instrumentalists. While literature illuminates some similarities between singers and players of jazz (e.g., Bauer, 2001, p. 303; Crowther & Pinfold, 1997, p. 31; Friedwald, 1992, p. 370; Potter, 1998, p. 95; Stoloff, 2012, p. vi), points of dissension are also evident. It suggests that when it
comes to jazz improvising, in some areas vocalists may not be entirely the same as instrumentalists. It is this problem of the lack of formal investigation that vocalists may differ in some significant areas that forms the basis of enquiry for this thesis.

Informally, vocalists have long been distinguished from instrumentalists as a separate group. Language itself conveys the distinction. The use of the word “musician” in discussions in the jazz community often refers to instrumentalists only, excluding singers from this category (e.g., Konitz in Hamilton, 2007, p. 130; Merrill in Enstice & Stockhouse, 2004, p. 265; Foti in Cosnowsky, 2008a, p. 144; Waldron in Grime, 1983, p. 118; Dorough in Pellegrinelli, 2001, p. 46; Jordan in Enstice & Stockhouse, 2004, p. 171; McCorkle in Crowther & Pinfold, 1997, p. 177; Friedwald, 1992, p. 22). Even Ella Fitzgerald, considered by Stoloff (1996, p. 8) to be unrivaled as a scat singer, declared in an interview, “I’m not a musician” (Bernstein, 1999).

Beyond language, literature holds a bountiful supply of references of how improvising jazz vocalists may differ from instrumentalists, as Chapter 2 of the thesis will detail. One of the most plentiful sources derives from references to poor achievement. Recognition of the disparity has appeared in album reviews (e.g., Bourne, 1996, p. 36), liner notes (e.g., Barnes, 2001), books (e.g., Shand, 2009, p. 209), jazz education journals (e.g., Greenagel, 1997) and interviews with legendary jazz performers (e.g., Pellegrinelli, 2001). It has even featured in debate over whether vocalists who restrict their improvisation to embellishing the melody should be called jazz singers at all (e.g., Hentoff, 2001).

One response of jazz educators who have noted the imbalance is to create resources intended to improve the plight of these perceived underachievers (e.g., Aitken & Aebersold, 1983; Coker & Baker, 1981; Weir, 2001). Yet, amidst a flurry of activity to generate solutions a fundamental step has been overlooked. If a difference in achievement outcome does exist then logically there must exist another difference or differences in input that produce this output. Rather than promote that singers catch up to instrumentalists by adopting an instrumental approach, it would be more logical
at this point to investigate how singers may differ. Without a more comprehensive understanding of the nature of the vocalist’s unique characteristics, endeavours to correct the perceived underachievement may be misdirected.

The words of Miles and Huberman (1994, p. 91) seem particularly applicable here in their discussion of the challenges of qualitative research: “Usually it is hard to explain something satisfactorily until you understand just what the something is.” The ability to explain and address effectively a perceived lower achievement of improvising jazz vocalists rests on the understanding of what initially makes them different. A thorough exploration of the vocalist’s characteristics must precede any attempt to attribute them to an outcome.

To recapitulate, efforts in education to correct a perceived lag in vocal improvisation achievement have not been constructed upon an investigation of possible differences between singers and instrumentalists, nor considered whether or not they may account for the lag. This foundational step is necessary to avoid misdirecting approaches. Comprehensive knowledge of vocalists’ attributes is a logical prerequisite to any viable solution to correct possible disparities. To date, research has not ventured there. This study intends to rectify this omission by first substantiating any possible existence of differences and then exploring their nature. It prompts the purpose of this enquiry.

The Purpose of the Research

The purpose of this research therefore is to explore how vocalists are distinguished from other improvising jazz musicians. This thesis will address the following primary research question:

How do improvising jazz vocalists differ significantly from their instrumental counterparts?
The vocalist’s attributes will be explored progressively throughout the thesis as aspects of the study respond repeatedly to the primary research question. A comprehensive reply necessitates the division of the question into three distinct components. The subdivision facilitates a sequential progression in exploration from the known to the unknown, journeying through contrasting literature and data types. These three steps constitute the secondary research questions of the thesis which will interact synergistically in the discovery of new knowledge. They are as follows:

1. What are the differences that have been cited in the research, educational and professional practice literature that distinguish improvising jazz vocalists from instrumentalists?

2. Which of these cited differences are statistically significant differentiations in the observations or experiences of current, professional Australian jazz musicians?

3. How have Australian jazz vocalists and/or tertiary jazz educators experienced these differences?

An Overview of the Study

The aim of this thesis is to fill a gap in the knowledge of vocal jazz improvisation. The study that the questions triggered was, by nature, exploratory research and thus generated the challenge of managing ample breadth while pursuing an in-depth consideration of the research problem. The difficulty in this particular case was the dual need for expansive searching for the perimeters of what constituted a significant difference, in conjunction with a thorough exploration of the qualities of each discovery. An effective research method needed to have the facility to elicit a high yield of varied data types, allowing for multiple lenses of analysis to extract the necessary detail. A mixed method approach was considered the most compatible with
the research objective due to its capacity to extract rich, complex data across complementary streams of enquiry (Madey, 1982, p. 235).

The study began with an examination of the body of literature from academic sources, music education and professional literature regarding the differences between improvising jazz vocalists and instrumentalists. It provided a familiarity with past and current research in the field, and an understanding of the context in which the research problem resides. The review also presented the opportunity to catalogue pre-existing acknowledgements of distinctions. As the thesis will show, these references in literature were common, yet the overall pattern was not identified. Thirty-seven differentiations of vocalists were extracted from the readings and used to provide a preliminary boundary for the investigation. From this platform, a research model was constructed to explore the parameters of each differentiation in a two-phase operation.

Phase one instigated an online survey of Australian adult jazz instrumentalists and vocalists. The quantitative data recorded the frequency of observation or experience of differentiations by participants. The investigation provided statistical data on the attribute being considered as a distinguishing feature of vocalists. The second phase of the research employed semi-structured, guided interviews of Australian, adult, jazz vocalists and/or tertiary jazz educators. Interviewees gave descriptions and examples of their experiences of differences. Data from the interviews underwent thematic analysis to facilitate an understanding of the qualities of each distinction.

The results of both stages of the research were then combined and grouped into five primary categories of vocal differences. These were motor feedback, verbal capability, embodiment, music learning experiences and role. The results are presented and discussed in the five findings chapters of the thesis.
Delimitations

Research in the social sciences is inherently challenging due to the innate complexity of its building blocks (Bartel, 2006, p. 345). The demand for knowledge of subjects necessitates the imposing of delimitations. As Bartel (2006, p. 345) explains, the understanding of a single construct is reliant on the understanding of another and so forth, continuing in a chain of intricate interdependency. In the case of this thesis, jazz is a particularly transient and vague construct to encapsulate. Potter (2000, p. 53) sums up aptly the difficulty when trying to define the genre: “...[J]ust as you think you have stumbled on an author who has finally got it right, you realise that there are so many exceptions that the exercise is futile.”

Defining the construct of jazz is so complex a task it is worthy of its own thesis. For this reason, the discussion in this study is limited so that attention may be directed to other constructs central to the thesis. Jazz musician does fall into the category of central constructs requiring detailed examination. An assumption that a jazz musician is simply a musician who performs jazz is far more troublesome than it may appear initially. The complexity in the construct becomes particularly obvious in the performance of a jazz standard where an instrumentalist is classified as a jazz musician yet a singer is not. The reasons for this distinction are bound irrevocably in the understanding of what may differentiate a singer from an instrumentalist rather than what distinguishes one musical genre from another. Consequently, an exploration of the construct of the jazz musician is included in the thesis while discussions of the nature of the jazz genre itself are intentionally concise. Additionally, discussions of jazz improvisation are restricted to the performance of the solo section which consequently requires singers to use scat syllables. While the author acknowledges interpretation of the first chorus of a jazz song may use improvisatory skills, the research is confined deliberately to examining the solo section. The reason for this delineation is explained in Chapter 2.
A third boundary in the study has been to limit the data collection pool for the survey and interviews to participants residing currently in Australia. The purpose of this restriction was twofold. First, the jazz scene within Australia, like the population itself, is notably smaller than the genre’s American homeland yet it is still deemed prominent in its contribution to the global tapestry of jazz (Shand, 2009, p. ix). This microcosm of the industry allows for a deep investigation within the time frame of a doctoral thesis. Secondly, the decision to limit the investigation geographically restricts the additional layers of research complexity in an already demanding study. By constraining the parameters to a local environment, it limits additional variables of cultural subtleties at play in foreign locales.

A fourth delimitation placed on the study was to further confine the participation pool to adults. The contribution of music education in primary and secondary schooling in Australia is noted by numerous interviewees in retrospective observations, however, a detailed investigation of their status and interaction is beyond the scope of this study. It must also be acknowledged that the references to differences prompting this study appeared largely in education and professional practice literature, or incidentally in research discussions. Whilst they carry some weight, the argument may be better situated on research that makes a detailed, direct, comparative assessment of the current states of instrumental and vocal jazz improvisation education in both formal and informal settings. As of yet, these comparative studies do not exist and it is beyond the scope of this study to provide such analysis. The references quoted in the literature review give sufficient impetus for this thesis with a cautionary note that formalised research would have added a preferred clarity to the opening discussions. Future studies may rectify this gap in research literature.

**Structural Outline of the Thesis**

The thesis is divided into nine chapters. Each chapter is headed jointly by a song title of a jazz standard and a traditional research heading. *Chapter 1: Introduction*, has already
sought to present the research problem, state the purpose of the research, provide an overview of the study and acknowledge the delimitations. The chapter will conclude with a discussion of the significance of the contribution of this thesis to new knowledge.

Chapter 2: Literature Review is constructed in three sections. The first section establishes the foundational constructs and premise utilised in the thesis. The second section examines the gap in vocal improvisation knowledge through a review of relevant literature and theoretical frameworks. The review serves to provide a contextual background and position the thesis amongst existing research. The final section of the chapter catalogues 37 possible differences between improvising jazz vocalists and instrumentalists noted in literature. This process serves as the launch pad for the new research conducted for the thesis.

Chapter 3: Methodology presents the design of the research model used in data collection. It explains how the model facilitates the exploration of the 37 possible differences extracted previously from literature. The chapter reports how two distinct research instruments were constructed, piloted and administered. It is followed by an explanation of the methods adopted for data analysis and presents an auxiliary finding from the survey which substantiates the perception of the poorer standard of vocal improvisation.

The subsequent chapters of the thesis present and discuss the findings arising from the data generated from the study. The emerging categories of difference provide a natural division of the discussion into the five distinct thesis chapters: Chapter 4: Findings on Motor Feedback; Chapter 5: Findings on Verbal Capability; Chapter 5: Findings on Embodiment; Chapter 7: Findings on Music Learning Experiences; and, Chapter 8: Findings on Role. These chapters integrate the results of the survey and interviews in a discussion that explores the distinguishing characteristics of vocalists.
The final chapter, *Chapter 9: Conclusions*, summarises the research journey, consolidates the findings and considers the global implications for vocal jazz improvisation education. It answers the primary research question of how improvising jazz vocalists differ significantly from instrumentalists.

**The Significance of the Study**

This thesis forms a significant contribution to the understanding of vocal jazz improvisation in four distinct ways. First, it responds to the demand for knowledge made by researchers in the field. Madura (1992, p. 211) recommends that if a difference is identified in achievement between instrumental and vocal improvisers, then research should be conducted to establish which attributes also vary. May’s paper (2003) advises future researchers to investigate the relationship between instrumental and vocal jazz improvisation so it may contribute to the foundation of future pedagogical models (p. 256). Wadsworth-Walker’s (2005) discussion of pedagogical practices in vocal jazz improvisation calls for research on adapting traditional jazz pedagogy to “specifically [address] the needs of vocalists” (p. 255). Heil’s (2005) thesis identifies the differences between vocal and instrumental jazz improvisation as an “area in need of research” and for which there is “no current research specific to jazz that provides insight into this issue” (p. 143). The knowledge supplied by this thesis will respond to the researchers’ demands.

A second benefit arising from this study is a questioning of the assumption in vocal jazz improvisation education that vocalists are in nature the same as instrumentalists. Logic shows that the use of a premise that is untrue can lead to conclusions that are not sound (Baggini & Fosl, 2010, pp. 13–17). If investigations establish that vocalists differ significantly in this regard, then the soundness of teaching singers to improvise by the so called instrumental approach comes into question. This thesis will play a valuable role in investigating and dismissing any unsubstantiated premise and thus call to accountability conclusions based upon it.
The third benefit of the study is the replacement of the “common sense” assumption with an evidence-base that displays new claims transparently within the context of research and practice. From this foundation, future researchers can test independently each finding for scope and impact, and then potentially build upon them effective educational programs and resources for vocal improvisers. Both Wadsworth-Walker (2005, p. 255) and Bennett and Feinberg (1996, p. 68) suggest there is no need to design totally new programs for singers. Instead, they recommend adapting existing instrumental programs to a vocal model. The accuracy in constructing a vocal model is dubious if it is done without first determining, through robust, reliable research methodology, which attributes belong to vocalists. Without such exploration, efforts to meet the singer’s educational needs could be misdirected. This study will generate the necessary evidence-base which in turn opens opportunities for development of effective jazz vocal education models.

The fourth gain that the research offers is its contribution to advocacy for improvising jazz vocal students. The study creates the foundation for developing appropriate educational models, which in turn creates a clearer pathway to improvement. Once the singer’s needs have been identified and understood, a more focussed effort may cultivate an awareness of any unique characteristics and promote positive changes to cater for them.

In summary, this thesis makes an important contribution to jazz education by challenging current thinking and presenting new theory with potential to change future practice. It responds to the demand for knowledge of vocal jazz improvisation, questions assumptions, presents a transparent premise on which to build new effective models, and illuminates the pathway for advocates to champion the educational needs of singers.
Conclusion

At the heart of this thesis lies philosophical thinking. While the pages will immerse readers in the subject of vocal jazz improvisation, it is the tenets of argumentation that rise to prominence. Baggini and Fosl (2010, p. 1) describe philosophers as people “concerned with the ways in which beliefs we have about the world either are or are not supported by rational argument”. Music education research in the past has been criticised for neglecting this approach (e.g., Reimer, 2006; Jorgenson, 2006). In a call to arms, Jorgenson (2006, p. 179) reminds music educators of the purpose of philosophical enquiry in research; “In the process of exposing and evaluating underlying assumptions, the philosopher makes explicit that which otherwise may remain implicit, and clarifies aspects that are prior to and deeper than the actions to which they give rise”.

The viewing of vocal improvisers through the philosopher’s lens indeed reveals a deeper need in jazz education. Attempts to rectify a perceived difference in vocal achievement outcome have taken place prior to clarifying if singers are unique. The value this thesis will add to current thinking is, as Jorgenson encourages, to make explicit how improvising jazz vocalists may differ from instrumentalists before further efforts to equalise achievement are attempted.

When distilled to its simplest form, the philosophical thinking in this thesis reflects Aristotle’s recommendation; “If men wish to establish something about some whole, they must look to the subjects of that which is being established...and the attributes which follow that of which it is to be predicated” (Aristotle, trans. 2006, p. 89).

That kernel of thought articulated some two thousand years ago remains applicable in doctoral research today. Effective explanation is preceded by a thorough exploration of the subject and its attributes. In this case, attributes are explored by addressing the research question: How do improvising jazz vocalists differ significantly from their instrumental counterparts?
Chapter 2: Literature Review

This chapter examines key perceptions encompassing improvising jazz vocalists and instrumentalists. It will examine prior research in the field, reveal gaps in understanding and demonstrate how the new knowledge revealed later in the thesis interlocks and contributes to current thinking. The chapter is divided into three sections. Section one presents the foundational concepts underpinning the forthcoming discourse. In this portion, the constructs of jazz improvisation and jazz musicians are explored. Additionally, the section scrutinises the credibility of the premise that there is a difference in achievement between improvising jazz vocalists and instrumentalists. It is this premise that justifies the search for precipitating differences.

Section two of the chapter assesses the context of the emerging new research. This portion reviews relevant studies in three jazz related areas; that is, research literature, education literature and professional practice literature. It will flag notable existing works and group them under relevant headings for ease of discussion. In this format, strengths, weaknesses and omissions in the field become evident. The section concludes with a discussion of the placement of theoretical frameworks in this research.

Section three of the chapter draws again from jazz research, education and professional practice writings, however this time they serve an alternative purpose. The section will identify and collate references to differences other than in achievement. The results reveal 37 observable distinctions. It is from this platform that the new research will be launched. The pathway of Chapter 2 is summarised in Figure 1 (see Figure 1).
Establishing Foundational Concepts

The discussion presented throughout this thesis hinges on an encapsulation of two constructs and the soundness of the premise that motivated the research, that there is a difference in achievement between improvising jazz vocalists and instrumentalists. The section begins with a brief discussion of the term **jazz** then follows with an examination of the two pivotal constructs; **jazz improvisation** and **jazz musicians**. The exercise reveals inextricable links between definitions and the differentiation of singers from instrumentalists. The section concludes by substantiating the premise that a difference exists in achievement between improvising jazz vocalists and instrumentalists.

**What is jazz?**

Jazz is a challenging musical genre to define and causes frequent debate in literature (Gabrielsson, 1999, p. 513). Definitions rely commonly on identifying characteristics such as instrumentation, standard repertoire, syncopation, sub-styles, swing and improvisation. Dissention arises over whether all attributes must be present and whether some have greater priority than others. There does, however, appear to be relative agreement that improvisation is a universal, primary characteristic (e.g., Ashley, 2009, p. 415; Cappello, 2004, p. 65; Coker, 1990, p. 4; Cooke, 1998, p. 12; Kuzmich, 1980, p. 51; Lee in Grime, 1983, p. 173; Prouty, 2004; Shuker, 2002, p. 173; Weir, 2001, p. 27; Wiskirchen, 1975, p. 69). Coker (1975, p. 53) goes so far as to argue...
that jazz has “stood virtually alone, for the better part of the twentieth century, in the utilization of improvisatory practices as its focal point” (emphasis in the original).

The integral association of improvising with jazz is epitomised in an incident experienced by Australian jazz musician Don Burrows. While on tour in Beijing in the 1980s, Burrows was forbidden by Chinese government officials to call his music jazz due to ill relations between America and China at the time (Morrison, 2006, pp. 102–103). He navigated artfully the restriction in an interview with Chinese media by substituting the word improvisation for jazz. The illustration demonstrates the strength of the link between the terms to the point where one replaced the other successfully. The span of views over the presence or absence of other attributes of jazz is less crucial to this thesis than recognising that across the spectrum of opinions improvisation is incorporated. Consequently, it raises the question that if jazz necessitates the inclusion of improvisation, then what is improvisation?

Construct One: Jazz Improvisation

Improvisation has been observed in music throughout history (Madura, 1999; Nettl & Russell, 1998). Literature on the subject describes it as a form of creating music with three common characteristics. The first is that improvising produces immediate musical performance (Cooke, 1998, p. 195; Gridley, 2000, p. 4; Nachmanovitch, 1990, pp. 17–18; Sawyer, 1992, p. 253; Sawyer, 2000, p. 150). In contrast, conventional composing generates musical output which may be performed later.

The second commonly observed characteristic is that improvisation occurs within linear time (Brown, 2000; Johnson-Laird, 1987, p. 77; Mendonca & Wallace, 2004; Sarath, 1996, p. 3). Improvisers must work in sequence and do not have the option to re-write or move ideas retrospectively. A consequence of the real-time restriction on editing is that errors become integral to the art form (Berliner, 1994, pp. 379—383; Sawyer, 1992, p. 260).
The third characteristic of improvising is that the performance output is generated in relation to referents (Berkowitz, 2010, pp. 1–7; Coker, 1987, pp. 1–2; Day, 2000, pp. 100–101; Johnson-Laird, 2002, p. 422; Peters, 2009, p. 82). Pressing (1984, p. 346) defines a referent as a musical structure or motive which provides a formal scheme. Sloboda (1985, p. 139) describes the same concept as the pre-existing “formal constraints” which supply a “blueprint” or “skeleton”. In jazz performance, the referents include, among others, the tempo, time signature, key signature, style and harmonic structure of the precomposed song facilitating the performance. They act as boundaries for the improviser to, as Nachmanovitch (1990, p. 33) puts it, “[slosh] against”. Sawyer (1992) explores this balancing act between observing the structure offered by referents and generating innovation (produced sometimes by contravening them). He notes the existence of “rules about breaking the rules” (p. 259). This philosophical conflict is further considered by Peters (2009) who examines the contradiction of valuing individualism and the standardised pattern in which jazz musicians assert their apparently unique perspectives. Peters (2009, pp. 94–95) resolves the conflict (under the heading of “Irony”) by concluding that although there are elements of predictability, improvisation emphasises the “becoming” of music creation rather than the “fixed” work. This change in emphasis to process is achieved during solos by deconstructing the structures of the referring work (pp. 76–85, 94–95).

Familiarising oneself with referents is considered important training for improvisers (Campbell, 2009, pp. 121—122; Johnson-Laird, 2002, p. 439; Pressing, 1998; Reeves, 2001, p. 1). Berliner (1994, p. 17) criticises the common definitions of improvisation for failing to acknowledge the “lifetime of preparation and knowledge behind every idea that an improviser performs”. Berliner’s (1994, p. 241) own definition attempts to incorporate this component; “reworking precomposed material and designs in relation to unanticipated ideas conceived, shaped and transformed under the special conditions of performance, thereby adding unique features to every creation.” His revision exposes a primary challenge in defining improvisation. If improvising is the “reworking [of] precomposed material” then ascertaining what is precomposed is necessary to delineate when reworking begins. Benson (2003) objects to this
juxtaposing of musical works as precomposed or reworked material (or as he labels it “productions” or “reproductions”). He argues that this perspective forces a definition of improvising to exclude the possibility that improvising exists in the creation of all music as a dynamic dialogue between composers, performers and listeners. While some share the view that improvisation is present in all performance (e.g., Gould & Keaton, 2000), there is a more mainstream approach found in literature. This approach places “the precomposed” and “the reworked” on the opposite ends of a continuum of music creation and negotiates the point at which improvisation starts (e.g., Berliner 1994, pp. 67, 70; Nettl, 1998, pp. 12—16; Wadsworth-Walker, 2005, p. 2).

The viewpoint of a continuum produces a plethora of musical language describing the relationship between the precomposed and the reworked. Terms found in jazz literature range arguably from marginal reworking to extreme; for example, melodicism (Hynes, 2000, p. 46), fills (Berliner, 1994, p. 193), ornamentation (Pressing, 1984, p. 348), paraphrasing (Madura, 1992, p. 22), rephrase (Berliner, 1994, p. 69), interpretation (Binek, 2007, p. 77), embellishment (Green, 2002, p. 42), chord running (Madura, 1992, p. 22), call and response (Campbell, 1991, p. 23), theme and variation (Fredrickson, 1982, p. 9), and stylistic phrasing (Shapiro, 1986, p. 56). These labels imply a degree of change, but whether or not they constitute improvising depends on whether the alteration is considered sufficient to transfer ownership of an idea from the composer to the performer. The salient point in the continuing debate is that the relationship between referents and performance output is a crucial focus in all improvisation.

It is insufficient for this thesis to merely acknowledge the discrepancy of opinions on where improvisation begins. Without a stable definition, it is not possible to compare vocalists with instrumentalists effectively. Bartel (2006) describes this dilemma as the challenge of balancing the tension between construct complexity and the need for simplification to generate meaning. A solution to the conflict experienced in this thesis is found in Nettl’s (1998) work. He notes that different “points of departure” that distinguish improvisation from composition are found in different genres of music.
By placing the filter of jazz on improvisation, greater consistency is observed in the application of the term. The professional literature reveals that jazz performers often reserve the term improvisation to describe when the harmony is the primary compositional referent in traditional jazz performance rather than the melody. Examples of this distinction are found in Berliner (1994), Madura (1992), Mendonca and Wallace (2004), Haines (2003, p. 42), Nettl (1998, p. 13) and Shapiro (1986, p. 22).

This specific use of the word improvising is reinforced in performance by the structure of a jazz song. Traditionally, the musical form begins with the performance of the composer’s melody, followed by solos where musicians generate new melodies over the harmonic changes. The performance then concludes with a return to the original melody (Berliner, 1994, p. 63). Jazz practice shows that the jazz community commonly connect discussions of the solos with improvising (Berliner, 1994). In contrast, words like interpreting, paraphrasing and embellishing are used to describe the first and final presentations of the chorus (e.g., Baker, 1997, p. 8; Berliner, 1994, pp. 67–70; Coker, 1990, pp. 7–9; Fairweather in Grime, 1983, pp. 99–100). Here, language reinforces the perception that a shift in the primary referent from melody to harmony is the point of departure in traditional jazz performance. Thus, to jazz musicians, solos are a demarcation of jazz improvising.

For this thesis, adopting solos as the point of departure for identifying improvising is congruent with jazz practice. Vocalists, however, are a notable exception in the jazz community. Consider the perspective of jazz vocalist and educator Justin Binek (2007):

Melodic alteration is and always has been an important part of a soloist’s interpretation of a song. Each singer approaches phrasing from a different perspective, and each singer alters the melody using different concepts and note choices. To ignore these concepts defines vocal improvisation solely in terms of scat singing, which is false. As the Los Angeles-based singer Carmen Bradford once stated in response to a student asking her why she didn’t
improvise, “Honey, just because I don’t scat doesn’t mean I don’t improvise.”

(p. 77)

Binek’s words show that he rejects the functional, dichotic separation of interpreting from improvising in favour of an overlap in meaning by subsuming the former into the latter. He is one of many vocalists who share this perspective (e.g., Clayton, 2001, p. 41; Davis, 2006, p. 4; Carol Sloane in Enstice & Stockhouse, 2004 pp. 313–314; George Melly in Grime, 1983, p. 98; Letson, 2010, p. 35; Soto-Morettini, 2006, pp. 65–67). It appears that jazz vocalists may defy the trend of excluding interpreting from improvising in their usage of the terms. The reasons, as will be discussed shortly, are likely to be embedded in the understanding of another construct.

A fourth characteristic of the construct of jazz improvising that is referred to in literature involves social interaction with other people, namely musicians and listeners (e.g., Bakkum, 2009; Benson, 2003; Filsinger, 2012; Levine, 2010; Monson, 1996; Sawyer, 1992). These authors make a case for its inclusion in a definition of improvisation. It appears to be a logical argument given that jazz improvising frequently takes place in musical ensembles. Kleinschmidt (2011) goes so far as to argue that improvising jazz musicians share the same skill set as academic leaders in the areas of teamwork and communication. As yet, there is insufficient support for the argument that social interaction is a fundamental characteristic of all jazz improvising. For example, the lone saxophonist improvising in the subway tunnel at a moment when no people are passing may not be engaged with musicians or audiences unless retrospective influences are considered. Past social experiences may have informed his or her choices, but the argument that social interaction occurred directly during improvising is less clear. In all, social interaction appears to be a frequent cohabitant of improvisation rather than a prerequisite. Consequently, it has not been included in the definition of jazz improvising for this thesis.

In conclusion, jazz improvisation is a complex construct with social factors impacting on its meaning. From a mechanistic viewpoint, it may be defined as a form of creating
music in linear time that produces an immediate musical performance with a relationship to pre-existing referents. However, a definition that accommodates application in the jazz context provides the fixed point of departure necessary for comparative research. Therefore, for the purposes of this thesis, the jazz musician’s common functional application of the term improvisation will be adopted; that is, jazz improvisation will refer to portions of performances containing the three aforementioned characteristics as applied during the solo section of a jazz song. The first and final chorus, which commonly utilise alteration based on the melody, will be termed interpretation and excluded from improvisation. Consequently, vocal improvisation in the thesis refers to performances using the harmonic framework as the primary referent during a solo in traditional jazz performance. For vocalists, this necessitates the use of scat syllables to replace the lyrics which have been discarded with the melody.

Adopting the jazz musician’s common functional definition of improvisation may appear to some as a slight on singers. To the contrary, the approach allows greater ease for comparing similarities and differences between musicians. In turn, the clear understanding of the unique characteristics of singers can generate more appropriate advocacy in jazz education. The reason the singer’s definition of improvisation differs from the instrumentalist’s usage does warrant further investigation. A likely explanation is linked to the definition of the second fundamental construct in this thesis; jazz musicians.

Construct Two: Jazz Musicians

As shown so far, improvisation is connected intimately with the musical genre of jazz. If vocalists sing the head of the song but do not solo then some declare that the singers have not improvised. Consequently, categorising them as genuine jazz musicians becomes arguable. Frank Sinatra is one singer at the centre of this dispute (e.g., Gourse, 2001a, p. 243; Johnson, 2000, p. 101). Literature shows a division between those who include Sinatra in historical overviews of notable jazz musicians
and those who omit or exclude him deliberately because he does not scat (e.g., Cooke, 1998; Gridley, 2000; Sheila Jordan in Enstice & Stockhouse, 2004, p. 173; Miller, 2004, p. 189).

Another example of the conflict is evident in Marcy’s (2006) article. He contrasts the performances of jazz vocal groups who either prioritise “balance, intonation and precision” (such as The Manhattan Transfer) with groups who are famous for their “improvisation and sense of musical adventure” (such as Lambert, Hendricks and Ross) (Marcy, 2006, p. 61). His passing comment that the latter category of vocal groups “were more in touch with what it meant to be a jazz musician” (p. 61) reveals Marcy’s position that he aligns improvising with the identity of jazz musicians. Hentoff (2001), furthermore, devotes an entire article to debating whether Jane Monheit and Diana Krall are jazz singers. In a different source, Krall (in Enstice & Stockhouse, 2004), expresses her own uncertainty with her classification:

…I’m a singer, whether I’m a jazz singer or not, and a piano player. I’m definitely a jazz piano player—I improvise, no question. I sing songs, but I’m not going to try to be a horn player with my vocals. I’m trying to be an interpreter of lyrics. But I choose not to scat sing, I choose to focus on the lyric. (p. 185)

Evident in Krall’s interview is her ambivalence over whether her choice not to scat negates her classification as a jazz singer. In direct contrast, she has no doubt she is a jazz pianist because she improvises. Krall’s difficulty demonstrates one reason why classifying a singer as a jazz musician is troublesome. The philosophical argument can be distilled using Aristotle’s syllogistic approach to reasoning:

All jazz musicians improvise.
Vocalists do not improvise. (They interpret.)
Therefore vocalists are not jazz musicians.
If this is a popular belief, then there may be a social motivation for vocalists to choose a definition which annexes melodic interpretation under the heading of improvisation. With a more liberal definition, they can defend their status as genuine jazz musicians in an industry where they are, according to Pellegrinelli (2005), marginalised. A trend of vocalists to connect discussions of interpretation with their legitimatization as jazz musicians suggests it is a possibility. For example, singer Shapiro (1986) argues that interpretation and stylistic phrasing should be considered legitimate, defining characteristics of jazz singing. Similarly, vocalist Jay Clayton (2001) justifies including interpretation in her definition with the explanation that Billie Holiday, who was “considered by many the greatest jazz singer ever, didn’t scat” (p. 41). Currently, the issue of whether singers who do not scat should be called jazz musicians remains unresolved. It is sufficient for this thesis to draw attention to how deeply the definitions of the two primary constructs are affected by differences between singers and instrumentalists.

There is, however, another aspect of the jazz musician that does require resolution for the thesis to proceed. It stems from the historical idiosyncratic use of the word *musician* by the jazz community, such as found in this example from vocalist Max Waldron: “Singers feel paranoid around musicians because most musicians have studied, and singers haven’t” (Grime, 1983, p. 118). Here his language demonstrates that he perceives singers as a separate entity to musicians, not as a subgroup. There are many citations which show the same application (e.g., Ella Fitzgerald in Bernstein, 1999; Digby Fairweather in Grime, 1983, p. 118; Lee Konitz in Hamilton, 2007, p. 130; Helen Merrill in Enstice & Stockhouse, 2004, p. 265; Billy Eckstine in Grime, 1983, p. 50; Calabria Foti in Cosnowsky, 2008a, p. 144; Pellegrinelli, 2005, p. 212; Abbey Lincoln in Enstice & Stockhouse, 2004, p. 207).

Others in the jazz community include singers under the umbrella of musicians, avoiding the possible negative connotations that vocalists are unskilled in music (e.g., Aitken & Aebersold, 1983, p. 8; Cartwright, 1995; Segal-Garcia, 2007). In particular, Karrin Allyson confronted this mentality at the *International Association of Jazz*
Education conference in 2002. Her workshop entitled “Vocalists are musicians too” actively debunked the perception. This thesis will adopt the inclusive practice of classifying vocalists as musicians. When a distinction is required for comparative purposes, the terms instrumentalists (or players) and vocalists (or singers) will be used.

In summary, the definition of jazz musician fits well for instrumentalists but is unstable when applied to singers who do not scat. So far, the issue has not been resolved and will continue to arise throughout the thesis as the depths of a singer’s differentiations are explored. The vocalist’s inclusion by the author as a musician regardless of musical genre, however, is assured in this thesis.

Premise: There is a difference in achievement between improvising jazz vocalists and instrumentalists

The justification for exploring how improvising jazz vocalists differ from instrumentalists rests on the logic that because a difference in achievement exists, another difference or differences must exist to produce it. Before proceeding with further research, it is prudent to scrutinise the soundness of the opening premise, that a difference in achievement exists. Currently, there is no study comparing directly the achievement of improvising jazz vocalists and instrumentalists. However, as will be shown, there are multiple references in literature demonstrating its perceived existence.

A common thread running through the literature is that although excellence in improvisation is possible for all musicians, it occurs less frequently for singers. Reid’s (2002, p. 40) thesis notes there are only five or six singers who kept pace with the advanced harmonic changes of the bebop era. Jazz educators Coker and Baker (1981, p. 4) state, “There have been no singers who have approached the awesome improvisatory and technical accomplishment of giants such as Charlie Parker or John Coltrane”. Aitken and Aebersold (1983, p. 8) also observe the discrepancy when comparing jazz improvisation in vocal jazz choirs with stage bands. At the time of
writing, they report singers not only lagged but also there were “NO SOLOISTS!” (emphasis in the original). Professor Jeff Pressing (1988, p. 135) of the University of Melbourne observes the comparative rarity: “For every first-rate scat-singer in the world there must be five hundred talented jazz saxophonists”. Shand (2009, p. 209) writes, in his examination of jazz in Australia, that the standard in jazz singing has “generally lagged behind” instrumentalists and “fewer than ten singers might be counted among the greats of jazz after a century of music making”. Berkman (2009, p. 1) explains that vocalists are not as skilled as instrumentalists because, “...many singers venture into scatting with little knowledge of what a jazz solo is.”

Aside from references made by educators, professional singers themselves concur that there is less frequent achievement. Abbey Lincoln notes that singers don’t yet know how to “jam like the horns do” (in Enstice & Stockhouse, 2004, p. 209). Mel Torme, makes his own comment on frequency:

> The truth of the matter is that scat singing is the toughest kind of singing. There’s very few people that can sing scat. There’s me and Ella [Fitzgerald] and Sarah [Vaughan] and Carmen [McRae]. And that’s really it. (in Grime, 1983, p. 112)

Kurt Elling (in Pellegrinelli, 2005, p. 405) suggests the lack of respect for jazz singers would be different “if we had 50 Jon Hendrickses walking around on the planet, who also had Mark Murphy in ‘em, who had Shelia Jordan in ‘em, who had Joe Williams in ‘em.” His remark reveals his perception that this is not the case. Betty Carter notes that there are ten thousand singers who will “sing [the melody] straight, who can’t improvise, who don’t even know how” (Carter in Grime, 1983, p. 99).

Jon Hendricks experienced actively the perception of infrequent achievement during his formative years. Pellegrinelli (2001, p. 46) reports how drummer Roy Haynes initially protested against Hendricks’ inclusion at a jam session. After Hendricks soloed, Haynes hugged him and said, “I thought some singer was going to come and interrupt
us. You’re just like the rest of us, man”. Haynes’ response demonstrates he considered Hendricks’ vocal achievement unusual for a singer.

As shown in Haynes’ comment, the rarity of vocal jazz improvisation excellence is often used as a background for distinguishing the expertise of one singer. The singer is declared superior because he/she is defying the trend. Benny Green’s review of a performance by Ella Fitzgerald in London in 1974 shows the device in action:

> While it is true that for a singer to mistake herself for a trumpet is a disastrous course of action, it has to be admitted that Ella’s way with a chord sequence, her ability to coin her own melodic phrases, her sense of time, the speed with which her ear perceives harmonic changes, turn her Basie concerts into tightrope exhibitions of the most dazzling kind. (Green in Pleasants, 1974, p. 176)

Here the writer admits that Fitzgerald’s performance was impressive, which contravenes the perception that scat is otherwise a “mistake” for singers. Likewise, jazz magazine critic Michael Bourne (1996, p. 36) touts Kevin Mahogany as “one of the rare jazz singers who can actually scat worth a damn” thus exposing the writer’s perception that excellence in scat is the exception rather than the rule. Jazz bassist Rufus Reid adopts the same approach when endorsing singer Jennifer Barnes in the liner notes of her album:

> Her rich vocal quality, clarity of pitch and emotion have what listeners expect from great singers. Jennifer integrates all of these skills with an additional pivotal skill that sets her apart from other great singers; she sings improvisations that are melodically and rhythmically interesting from the point of view of a jazz instrumentalist. (Rufus Reid in Barnes, 2001)

Again, nearly three decades after the review of Ella Fitzgerald, it is the unexpected, “additional” skill of producing interesting improvisations that is credited with
distinguishing Barnes from the norm of other singers.

The second commonality in the difference of achievement, aside from lower frequency, is that vocal improvising is perceived generally to be of a lower standard than instrumental. Weir (2001, p. 12) cites a lack of jazz vocalists who sing harmonically sophisticated improvisations compared to instrumentalists. Madura Ward-Steinman (2008, p. 5) concurs. Green Nagel (1994, p. 5) describes the reputation of vocalists for “being exceptionally inadequate improvisers”. Pellegrinelli (2005, p. 343) explains that jazz writers attribute their neglect of vocalists in articles “because most singers aren’t very good”. Jazz educator Larry Lapin (in Green Nagel, 1997, p. 40) reports vocalists as being “so far behind the experience level of the instrumentalists” that combining the two in improvisation classes “often just didn’t work”. Wadsworth-Walker (2005, p. 231) notes that master-pedagogues of vocal jazz improvisation encourage singers to practise regularly with instrumentalists “in order to gain access to more advanced musical ideas”.

Observations of lower achievement often manifest as criticisms of vocalists by instrumentalists. DiBlasio’s (1996, p. 34) vocal improvisation students report instrumentalists laughing at them because they “don’t know anything”. When singer Roseanna Vitro (in Cosnowsky, 2008b, p. 154) enquired at the local school about the school starting a vocal jazz program, the course director responded, “Have you heard the jazz singers? I have no interest in educating them”. Pianist and singer Roy Kral dismisses singers in a similar manner when he gives the following advice: “Most singers would be smarter to step to one side and let the instrumentalists take it over, before they start hitting the sixth about eight thousand times” (in Grime, 1983, p. 109).

In conclusion, the survey of literature confirms the premise that there is a perceived difference in achievement in improvisation between instrumentalists and vocalists. (Formal verification is supplied in Chapter 3. The results will substantiate statistically that the perception exists.) The references to a lesser frequency and generally a lower standard of achievement by vocalists implies logically the existence of other
precipitating differences. It justifies an evidence-based pursuit to uncover them.

**Reviewing the Context**

So far this chapter has explored the definitions of jazz improvisation and jazz musicians, and scrutinized the premise that there is a difference in achievement between improvising jazz vocalists and instrumentalists. The discussion provided a preliminary foundation upon which a detailed review of literature can now be undertaken to enquire whether vocalists are differentiated from instrumentalists in jazz improvisation education. The summary and critique of relevant writings will demonstrate how this thesis will interlock and contribute to existing knowledge.

Literature relevant to jazz improvisation emanates from three general sources. The first source, jazz research, incorporates theses, formalised studies, books, and articles of scholarly merit. The second category derives sources from jazz education, which encompasses books, articles, instructional manuals and teaching resources distinguished generally from other writings by their motivation to educate. The third source of literature is generated from the practice of the jazz profession. These items include concert reviews, liner notes, celebrity interviews and biographies, offering insight into the experience of improvising. In all, the segregation of literature into the three discrete categories allows for the information to be examined in manageable portions. Under these three headings, topics will be further grouped into prominent themes to best illuminate where clusters of thought on improvising have focused to date. At times, overlaps occur across the three bodies of literature.

**Jazz Research Literature**

*Achievement in Jazz Improvisation*

Assessing achievement in jazz improvisation is the focus of much research and presents a challenge for educators (Eisenberg & Thompson, 2003, p. 287). The
measurement, evaluation or prediction of achievement has been the primary motivation of multiple instrumental studies (e.g., Briscuso, 1972; Ciorba, 2006; Eisenberg & Thompson, 2003; Horowitz, 1994; May, 2003; Pfenninger, 1990; Smith, 2009; Tumlinson, 1991). In addition to these are studies that have measured achievement for the purpose of validating the effectiveness of an educational program designed for the researcher’s project (e.g., Aitken, 1975; Bash, 1983; Burnsed, 1978; Coy, 1989; Edmund, 2009; Damron, 1973; Laughlin, 2001). A measurement of achievement was also employed by Watson (2008, 2010a) when comparing the effect of aural versus notated instruction on jazz improvisation achievement. The tools for measuring improvisation achievement adopted by these 17 researchers were tested by themselves on cohorts of instrumentalists, and no postulations were made on their suitability for assessing vocal improvisation.

One study that utilised an achievement measure on both singing and instrumental tasks was Hart (2011). With a mixed methods approach, Hart (2011) assessed the improvisation achievement of undergraduate non-jazz major students following 14 weeks of jazz improvisation classes for beginners. Hart concluded that improvisation and singing achievement are related to overall performance achievement. This is dubious given the small sample size. Only eight students participated in the quantitative component of the study. Furthermore, the researcher revealed that some of these eight students did not take part in all of the assessment tasks (Hart, 2011, p. 33). Consequently, the effectiveness of a single achievement measure applied to both improvised vocal and instrumental tasks was not considered robust enough to appraise its accuracy.

In contrast to the number of studies of instrumentalists, research on vocal jazz improvisation achievement is limited. Two researchers (Brent, 2008; Johnson, 1999) designed educational programs aimed at improving the achievement of vocal improvisers. Preponis (2009) investigated whether instrumental proficiency improves vocal improvisation achievement by examining the social and musical lives and works of six iconic jazz vocalists (three with reported instrumental backgrounds and three
without). Preponis (2009, p. 36) concluded that student vocal improvisers “should at least work toward proficiency on piano” in order to “achieve optimum benefits and desired results”. This is questionable given that the method did not effectively isolate the variable. Unlike their instrumental research counterparts, neither Brent, Johnson nor Preponis included any substantiated measurement of achievement to validate their conclusions. As Bowman (1988, p. 71) points out, the claim that one educational approach or one attribute produces higher achievement is questionable when there has been no reliable measure of efficacy.

To date, three researchers have attempted to assess achievement in vocal jazz improvisation; Madura (1992; Madura Ward-Steinman, 2008), Greennagel (1994) and Heil (2005). Madura’s 1992 study of significant predictor variables measured achievement using a research instrument based on ten categories she extracted from David Baker’s *Jazz Pedagogy* (1989). She conducted a pilot then adjusted the criteria for the official study. The first signs of a distinctively vocal model for measuring achievement appear in these alterations as she introduces the variables of “appropriate use of scat syllables, appropriate tone quality, variety of tone quality” (pp. 66, 233). The inclusion of these additional features are not explained nor justified by Madura, and nor are they present in Baker’s original source. Examination of the original source reveals Baker (1989) makes brief references to the existence of vocal styles (p. 106), appropriate styling for all jazz musicians (p. 169) and general control and personalisation of tone (p. 174). He does not, however, offer parameters or guidance for tone quality or variety in tone applicable to voice as implied by Madura’s reference. Madura makes further modifications to her model for her 2008 study by introducing six new variables to the equation, four of which refer distinctly to unique vocal attributes: variety of scat syllables, originality of scat syllables, vocal control and originality of vocal timbre (Madura Ward-Steinman, 2008, p. 8).

Madura’s device for measuring vocal achievement shows an evolution from a version that contains no differentiations of voice (the pilot), to a version with seven vocal variables (Madura Ward-Steinman, 2008), yet little justification is given for the
alterations. Her general citation of Berliner’s (1994) study does not provide precision nor direct substantiation for these inclusions. Likewise, her reference to Levitin’s presentation of a paper at a SEMPRE conference in 2005 in Cambridge lacks any detailed explanation of its relevance to the introduction of variables. The paper, entitled *Creativity Under Constraints: Popular Music 1954—2004*, has not been made available publicly by the author (as confirmed in personal communication with Dr D. J. Levitin, 12 December, 2011). This prevents researchers from independently ascertaining how Levitin’s work justifies her modifications. The salient point relevant to this thesis is that Madura’s tool for assessing achievement required several modifications for vocalists, yet there is inadequate rationale of why the changes were necessary. Her initial assumption that a generalised measure of jazz characteristics extracted from Baker’s text can be applied to vocalists without modification is shown to be faulty. The subsequent lack of an adequate rationale exposes an omission in literature which this thesis will explore; namely, how the characteristics of singers differ significantly from instrumentalists.

The second researcher who assessed vocal improvisation achievement was Greennagel (1994). He examined the predictors of jazz vocal improvisation skills by measuring the improvisation achievement of 30 jazz vocal majors at the University of Miami. The researcher chose four criteria for the assessment because they “reflect the common desirable characteristics of successful jazz improvisation found in much of the literature reviewed” (p. 41). Three of the criteria fit generalisations for all musicians but the fourth shows specific accommodation being made for singers; i.e., “Appropriate articulation—how well the improvisation uses vowel and consonant articulation to verbalize intended sounds” (p. 77). Aside from a lack of explanation of how the judge would know a performer’s intentions, the justification for including this criterion is weak. A review of the five texts cited by Greennagel on page 41 (i.e., Aebersold 1967; Baker, 1989; Burnsed & Price, 1984; Coker, 1964, 1978) finds that while there are references to musical articulation, there are no actual references to “vowel[s] and consonant [s]”. To reflect common usage, the *Oxford Dictionary of English* (Soanes & Stevenson, 2005) separates two meanings of articulation under
different definitions. The first emphasises vowels and consonants and the second describes notes. In contrast, Greennagel’s usage bridges the domains of music and speech. His change in the meaning of articulation from the performance of notes to the performance of vowels and consonants occurs without justification and avoids the question of whether instrumental and vocal articulation are equally comparable actions. As in Madura’s study, Greennagel’s failure to consider and explain adequately vocal considerations further confirms the questionable assumption in the literature that vocalists and instrumentalists are comparable equally.

The third researcher to investigate vocal jazz improvisation achievement was Heil (2005). She compared the effects of “technical/theoretical” and “melodic/imitative” instructional methods on vocal jazz improvisation students’ attitudes and performance achievement. To measure achievement, Heil utilised only the tonal and rhythmic measurement portion of Madura’s (1992) model which did not include any criteria pertaining specifically to vocalists at that time.

Heil’s failure to incorporate scat syllables in a measurement of rhythmic achievement reveals her assumption that scat syllables do not impact upon rhythmic performance. To the contrary, there are many references that recommend vocalists use particular syllables because of their rhythmic suitability (e.g., Coker & Baker, 1981, pp. 62–65; DiBlasio, 1991, p. 6; Fredrickson, 2003, pp. 7–11; Niemack, 2004, pp. 35–39; Stoloff, 1996, p. 15; Stoloff, 2003, p. 8; Weir, 2001, pp. 81–85). To these writers, syllabic choice can have a positive impact on rhythm. Aitken and Aebersold (1983, p. 9) also note a poor choice of syllables can produce a sound that is “un-flowing”, “angular” and “destroy[s] the basic fundamental interpretation of the jazz line”. They further criticise published musical arrangements for notating scat syllables that are “hard to sing, and harder to make swing” (p. 10), demonstrating an impact on rhythm. In general, many writers in education and professional literature perceive an integral relationship between scat syllables and rhythmic application.
Heil’s (2005) extraction from Madura’s 1992 model means Heil fails to consider whether scat syllables impact on rhythmic performance. This is despite Madura’s (1992, p. 148) own finding that there is a “direct relationship between appropriate syllable use and rhythm”. In contrast, Madura (Madura Ward-Steinman, 2008) altered her own model in later research to include a criteria of “scat/vocables” under the category of rhythm (p. 10). Heil’s exact replication of Madura’s initial error adds to the ongoing pattern of assuming it is unnecessary to include unique vocal elements in the assessment of improvisation.

In summary, a review of research literature in achievement reveals that although the topic is well addressed for instrumentalists, vocal research lacks in three areas. First, there is less research on vocal improvisation achievement. Secondly, the researchers who have incorporated specific vocal attributes in their models for measuring achievement have not substantiated their inclusions clearly. Finally, the inclusion of scat syllables assumes that they are either equivalent to instrumental articulation or that they have no rhythmic ramifications.

At the heart of these weaknesses lies the issue of whether it is appropriate to measure achievement using the same model for vocalists as instrumentalists. Some attempts to universalise instrumental models of achievement from a single group of instruments to the broader instrumental cohort have been successful. Laughlin (2001, pp. 9–10) achieved this by instructing polyphonic instruments to play single line melodies so that a comparison of performance variables could be made across all instrumentalists. Likewise, Ciorba (2006, p. 49) matched variables by asking the percussionists to play marimba or vibes so melodic content could be compared effectively. In contrast, as Madura experienced in utilising Baker’s (1989) text, a transference of jazz concepts from instruments to voice may not accommodate comfortably the new elements that scat syllables introduce.

In the wider research literature in music education, measurement systems that compare achievement of vocal and instrumental performance show signs of
accommodating vocal differences. For example, Ciorba and Smith’s (2009) multidimensional assessment rubric consists of a five point rating scale across three categories: musical elements, command of instrument, and presentation. Initially, the categories appear broad enough to include all musicians. However, in the fine print explaining the first category, it is evident that the model has been constructed to accommodate the uniqueness of vocalists. “Musical elements” is stated as referring to “proficiency with and accuracy of musical elements including pitch, rhythm, text, articulation and score accuracy” (p. 9). Although the word “text” may be interpreted to mean lyrics or the printed notation, it is more likely to mean the former given “score” is specified as a separate element.

In all, the need for research to establish whether scat syllables are a significantly different characteristic between instrumentalists and vocalists is apparent. It determines ultimately whether a universal measure of achievement is appropriate for assessing singers and players alike.

Aside from research that attempts to measure or predict achievement in jazz improvisation, outstanding individual achievement is also cited as the motivation for researching individual jazz musicians such as Terence Blanchard (Brooks, 2008), Sonny Rollins (Drewek, 2009), Chet Baker (Heyer, 2011). This may account for a notable portion of jazz research literature. The writings, however, do not generally offer insight into the argument of this thesis due to their limited focus, which is often on the musical analysis of the individual’s improvisation output.

Cognitive Processing in Improvisation

Jazz improvisation is regarded as a highly complex cognitive task (Campbell, 1991, p. 23; Berkowitz, 2010, pp. xviii, 131) and deserving of trumpeter Lonnie Hillyer’s description of it as “a thinking kind of music” (in Berliner, 1994, p. 440). Discussion of how performers think while improvising generates a notable portion of relevant scholarly literature (e.g., Berkowitz, 2010; Clarke, 1988; Hargreaves, Cork & Setton,

Kenny and Gellrich (2002) designed a model that integrates aspects of Clarke’s (1991) theory of hierarchical categories of improvisation with Johnson-Laird’s (1991) consideration of cognitive loading. Kenny and Gellrich added the dimension of dynamic performance variables. These variables include interaction with audiences, fellow musicians, and acoustic considerations (p. 121). Sarath (1996) and Mendonca and Wallace (2004) both made a case for including temporal frameworks in models of cognitive processing in improvisation. Further to these contributions, Berkowitz (2010) examined the nature of the knowledge-base used by improvisers and considered how it is acquired, internalised and applied. He identified three stages of learning in improvisation as 1) incubation/internalisation/assimilation, 2) rehearsal, and 3) development through performance (p. 82).

Often found in the writings on cognitive processing are discussions of the roles of conscious and subconscious thinking. In particular, Johnson-Laird (1987, 2002) argues that the effort to recall consciously a melodic fragment, modify it to fit the harmonic changes then connect it immediately to another fragment is far too great for it to be done constantly during improvisation. The improviser must therefore rely on developing “tacit skill” which operates within the subconscious (1987, p. 78). The internalisation and automation of processes can then free cognitive processing space to focus on creating coherence and structural unity in a melody.

Berkowitz (2010) concurs that explicit (conscious) and implicit memory (not dependent on conscious) form a notable relationship in improvising. The tacit skill to which Johnson-Laird refers is identified by Berkowitz (2010, pp. 8–10) as procedural
knowledge which he notes usually (although not always) utilises implicit memory. The development of procedural knowledge through fostering the implicit memory is thus considered a central cognitive process in developing improvising skill.

Norgaard (2011) labels the conscious and subconscious modes of thinking as a theory mode and play mode. The former gives conscious attention to technical and theoretical musical concepts, while the latter focuses less on conscious attention to chordal structures and more on planning, evaluative and interactive processes.

Another prominent discourse in cognitive processing concerns the jazz musician’s acquisition of “knowledge” which is used in the act of improvising (Berkowitz, 2010). Pressing (1984, p. 346) describes acquiring a knowledge of referents. He defines referents as “an underlying formal scheme or guiding image specific to a given piece, used by the improver to facilitate the generation and editing of improvised behaviour” (Pressing, 1984, p. 346). Referents in jazz improvisation include time signatures, chord progressions, rhythmic feel and the melody. They assist performers by reducing the amount of attention they must direct to selecting materials, and by providing a common basis for interaction with other musicians (Pressing, 1998). Johnson-Laird (1987, 2002) describes a second type of knowledge, procedural knowledge, which encompasses the principles governing harmony, metre, rhythm and contour. Musicians use this knowledge subconsciously when constructing improvisations.

Knowledge of both referents and procedures can be contained within musical fragments stored in what Berliner (1994, pp. 95–119) describes as an ideas bank. The ideas bank is a storehouse of motifs, solos, licks and patterns which have been inputted into the jazz improviser’s memory. Each idea contains referents and procedural knowledge which may be interwoven consciously or subconsciously into an improvised performance. This is demonstrated at an elementary level in Whitcomb’s (2003) article on vocal improvisation, and explored at a complex level in Gross’ (2011) study of the improvisations of jazz pianist, Bill Evans. Norgaard’s (2008, 2010)
investigations into the thought processes of “artist-level” jazz instrumentalists provide examples of how musicians utilise their knowledge of referents and procedures, as well as their ideas bank, in idea generation. Acquiring a knowledge of referents and procedures, and building an ideas bank is emphasised frequently in jazz education literature (e.g., Baker, 1989; Campbell, 2009, 121–122; Coker, 1964; Crook, 1999; Gioia, 2012; Murphy, 2009, p. 176–177; Parsonage, Frost Fadnes & Taylor, 2007; Reeves, 2001; Weir, 2001).

Musicians learn how to apply such knowledge, consciously or subconsciously, through the act of improvising itself (Berkowitz, 2010, pp. 88–94; Berliner, 1994, pp. 41–46; Johnson-Laird, 1987 p. 77; Mark Murphy in Weir, 2001, p. 211). Berkowitz (2010, p. 94) goes as far as to posit that there is “no substitute for the experience of improvising in performance when learning to improvise”. He later states that it is “through the act of production that one gains productive competence and further refines perceptual competence” (p. 108). Thus, the act of improvising is considered by researchers to be an essential developmental experience.

In recent years, studies of cognitive processing have been enhanced by advancements in medical technology. Scientists Limb and Braun’s (2008) use of functional neuroimaging methods found that during improvisation there is a general deactivation of the portions of the brain that process self-monitoring and inhibition, while there is an activation of portions associated with self expression and creativity. Likewise, Berkowitz and Ansari (2008, 2010) used functional magnetic resonance imaging of the brain to study novel motor behaviour during improvisation. They found in the latter study that musicians deactivated the right temporoparietal junction during melodic improvisation. The researchers proposed this may allow improvising musicians to produce a “more goal-directed performance state that aids in creative thought” (2010, p. 712).

In the literature on cognitive processing discussed so far, almost no distinction is made by researchers between improvising jazz vocalists and instrumentalists. The principles
presented are presumed to apply universally to jazz musicians. It is only Pressing (1988) who considers whether differences in cognitive processing between singers and instrumentalists may exist. In a discussion of motor feedback, he explains that instrumentalists utilise aural, visual, proprioceptive and tactile feedback, while vocalists can access only aural and kinaesthetic feedback (1988, p. 135). He postulates that the difference is significant enough to explain the singer’s lag in achievement.

Pressing (1988, p. 135) further notes that some “instruments” offer less categorical kinaesthetic feedback than others, such as violin and the vocal apparatus. Concurring evidence regarding the vocalist’s feedback is found in a study by Murbe, Pabst, Hofmann and Sundberg (2002). They observed that when the auditory feedback is masked for beginner voice students, the accuracy of pitch performance is affected. The kinaesthetic feedback supplied through the muscles in the larynx and structures adjoining the vocal tract is insufficient on its own to produce accurate pitch performance in beginners. The study confirms that voice can be ventured as one of Pressing’s “instruments” that lack categorical kinaesthetic feedback. Hence, auditory feedback acts as a primary source of feedback used in developing vocal motor programs for pitching. Berkman (2009, p.1) sums up the imprecision in describing the voice as “essentially an ear-activated slide whistle”.

The possible impact of reduced motor feedback on vocal improvising has not yet been examined in cognitive processing research. In particular, its effect on conceptualising pitch exposes new territory for investigation. As shown already, research supports the importance of acquiring knowledge of referents and procedures, and an ideas bank. There is little discussion however of whether the acquisition, retention or application of the knowledge is conceptualised in absolute pitch. Berkowitz (2010, pp. 39–80) postulates that the process of learning explicitly and practising musical formulae in 12 keys progresses an item from short-term memory (p. 42) to an intimate connection with its structural components (pp. 46, 54–55). The formulae can then be recombined “automatically” (p. 45) to “provide a network of possible pathways through the knowledge base” (p. 78). This theory suggests, for instrumentalists at least, specific
ideas may be at first conceptualised consciously in pitch but perhaps, with repetition, they are retained as a framework of tonal relationships (pp. 41, 46) rather than associated with fixed pitch. No reflection is offered by Berkowitz on how the process is experienced by singers, whose reduced motor feedback may affect whether the acquired idea is conceptualised in absolute pitch in the first place.

The need for instrumentalists to think in absolute pitch, because of finger or hand placement on an instrument, appears to have been extended to the assumption that vocalists must think that way as well. For example, in Heil’s (2005) study of vocalists, she writes, “The rhythm changes are more harmonically complex than the blues changes as improvisers are required to think in different keys” (p. 119). Her conclusion that vocalists think in different keys is an assumption that may have arisen from the understanding that this is a difficulty for instrumentalists. Whether vocalists think in absolute pitch or not, and the consequences of this on thinking in improvising, is a topic for future research. Such research can be launched from the exploration that this thesis will provide on how vocalists differ from instrumentalists.

Skill acquisition exposes another point of possible difference in experience between vocalists and instrumentalists. Acquiring skill in improvisation is often attributed by musicians to repetitive practice (Berliner, 1994). Berkowitz (2010) details the process of acquiring musical devices, internalising them, practising them and then recombing them in improvisation performance. Johnson-Laird (2002) shifts the value of repetitively practising patterns and motifs from developing conscious tools, to the subconscious absorption of rules and principles used for constructing an improvised solo. The connection between acquiring knowledge of referents and procedures, and self-directed music practice is significant in light of observations of the amount of time singers practise. Literature claims repetitively that vocalists spend less time than instrumentalists practising (e.g., Berkman, 2009, p. ii; Grime, 1983, p. 80; Pellegrinelli, 2005, pp. 408–409; Wadsworth-Walker, 2005, p. 190; Weir, 2003, p. 54). The reasons vocalists allegedly practise less is open to speculation. The relevant observation is that if a difference in the amount of practice time exists, there may be cognitive
consequences for the act of improvising in jazz. Vocalists may not be acquiring sufficient knowledge of referents and procedures, building an adequate ideas bank, nor engaging in the critical developmental experience of improvising.

In summary, the thought processes that take place during improvisation may have characteristics shared by all musicians. Closer examination, however, reveals sufficient doubt that all elements are applicable for singers. The reduced motor feedback available to singers and the reduced time spent acquiring skills may generate significantly different outcomes between singers and players. This thesis will explore whether any such differences in the thought processes in improvisation may exist and, if so, challenge the pedagogical flaw of assuming otherwise.

**Vocal Jazz Pedagogy Research**

Instrumental jazz improvisation pedagogy has received much attention over the past three decades (e.g., Bitz, 1998; Brooks, 2008; Carter, 1986; Laughlin 2001; McKinney, 1978; Treinen, 2011). A common approach adopted by researchers is to develop instructional methods with the purpose of improving the effectiveness of jazz improvisation education (e.g., Aitken, 1975; Bash, 1983; Burnsed, 1978; Carlson, 1980; Damron, 1973; Hores, 1977; Paulson, 1985; Wetzel, 2007). Vocal jazz improvisation pedagogy research has emerged more recently than instrumental, but has mimicked its development, with some researchers designing their own instructional methods (e.g., Buchholz, 2010; Heil, 2005; Johnson, 1999).

One trend that can be identified in vocal improvisation pedagogy writing is the tendency of researchers to compare vocalists with instrumentalists. In Bock’s (2000) study of vocal instructional methods from 1977–1999, she observes a general agreement amongst educators that vocal improvisers should be taught in the same manner as instrumentalists, using a theoretical emphasis rather than an aural-imitative approach (p. iv). In contrast, Motteler (2006) concludes that there is a need for a different approach for singers, which focuses on aural development (2006, p. 32). The
contradiction between Bock and Motteler’s conclusions brings to awareness a debate over the distinct pedagogical needs of vocalists. What becomes apparent is that although discussions centre on how best to educate vocalists, there is little if any explanation of how singers are the same as or different from other musicians. The justification as to why vocal students should or should not generate distinct pedagogical approaches is noticeably absent.

Wadsworth-Walker’s (2005) study of vocal improvisation pedagogical practices contains frequent comparisons of singers with instrumentalists (e.g., pp. 43, 48, 211, 212, 224–232, 235, 247, 253, 260, 261). She concludes, like Bennett and Feinberg (1996, p. 68) before her, that vocal improvisation education requires the “adaptation of [existing] techniques traditionally associated with jazz pedagogy specifically addressing the needs of vocalists” (p. 255). Yet despite her call for vocal modifications, she does not distil clearly what is uniquely vocal, and therefore has no criteria for including or excluding strategies. Similarly, Brent’s (2008) ear training program, designed to facilitate acquiring skills in vocal jazz improvisation, also lacks a rationale. His evaluation that one particular vocal improvisation text provides “important skills necessary for any jazz vocalist” (p. 12) is weakened because of the absence of any clarification of what the skills are and why they are specifically “necessary” for vocalists.

Buchholz (2010) also lacks clear criteria of what is “vocal” in his study of jazz vocal repertoire. His study analyses musical elements within 43 jazz vocal standards and considers how they applied to teaching vocalists jazz concepts, including improvisation. He encourages singers to improvise lines based on Shelton Berg’s (1998) general text *Jazz Improvisation: The Goal Note Method*. He does not consider whether vocalists, who have less motor feedback than instrumentalists, can wield as much accuracy in hitting goal notes. Overall, Buchholz does not assess the effectiveness of this approach for vocalists, nor is any explanation offered of why this process is more appropriate for singers than any other group of musicians.
Weekly and LoVetri (2003, 2009) researched the background demographics and training of voice teachers who teach contemporary commercial music (CCM), including jazz. Both studies find that many teachers of CCM are only trained in classical technique. The second study (2009) discusses the implications of this lack of training given the identified differences between classical and contemporary styles (pp. 373–373). The findings raise the possibility that jazz vocal students are not receiving effective training to equip them with appropriate vocal technique.

In summary, vocal pedagogy constitutes an emerging portion of the literature in jazz research. Although the differentiation of pedagogical approaches for vocalists from other musicians is evident, the research lacks adequate clarification of how improvising vocalists are distinguishable and offers no explanation of why some characteristics should be deemed appropriate to a “vocal” pedagogical approach. This thesis will challenge the “common sense” assumption that vocalists and instrumentalists are so similar that they can be guided successfully by identical pedagogical practices.

**Scat Syllables**

To date, there are three researchers who examine scat syllables in jazz improvisation. Bauer (2001) analyses timbral and phonemic usage of syllables in the scat solos of Louis Armstrong. Bauer’s work (2007) argues that scat syllable selection impacts significantly on the success of an improvised vocal solo. Edwards (2002) approaches the topic from a musicological perspective by comparing Louis Armstrong’s unusual use of syntax in everyday language with his jazz singing and scatting. Binek’s (2007) chapter provides a detailed analysis of six improvised solos of notable jazz vocalists, and compares their usage of scat syllables. From this, he identifies specific patterns that he concludes produce effect, reliability and authenticity in vocal improvisation. In all, there has been minimal research into the nature of scat syllables and their role in successful vocal jazz improvisation. The pedagogical impact of including or excluding
scat syllables as a topic in jazz education curriculum has not been measured.

Jazz Education Literature

Literature from jazz education provides a second source of writings relevant to the thesis. Some book chapters arising from music education and music psychology research offer comment on the current state of thinking regarding improvisation (e.g., Ashley, 2009; Lehmann, Sloboda & Woody, 2007, pp. 127–144). One recent argument in the discourse contests the assumption that music education takes place predominantly in institutions or private teaching studios. Green’s (2002) text *How Popular Musicians Learn: A Way Ahead for Music Education* elevates informal music learning practices such as “listening and copying” and “jamming” to legitimate learning experiences alongside “formal music education”. Her position is echoed by Murphy (2009). He argues that a well rounded jazz improvisation education is accrued from experiences both inside and outside the tertiary classroom. Indeed, “outside” experiences such as jam sessions are valued widely by jazz musicians as a traditional training ground (Berliner, 1994, pp. 41–44; Nelson, 2011). Sloboda (2005, pp. 251–255) offers Louis Armstrong’s early life history as an example of a jazz musician who acquired his music education entirely from informal methods. In all, the broader perspective on music education (regarding it as occurring in both formal and informal settings) is adopted by the thesis. This perspective becomes relevant particularly when examining the music learning experiences of improvising jazz vocalists in Chapter 7.

Aside from books, the majority of works from jazz education literature relevant to this thesis come from the plethora of instructional resources and articles in music education journals. The writings are grouped below in pertinent topics.

Vocal Improvisation Instructional Books and Resources

Jazz improvisation instructional books arrived on the market in 1935 (Carter, 1986, p. 11), and have continued to accumulate over the years (e.g., Aebersold, 1967; Baker,
In addition to these improvisation books are collections of instructional recordings or “play-a-longs” for assisting jazz musicians to develop improvisational skills (e.g., Jamey Aebersold’s Play-A-Long series 1967–2013, Hal Leonard’s Jazz Play Along series 2002–2013, Froseth & Blaser’s Do It! Improvise 1994, and, Froseth & Froseth, 1995). Over its 44-year history and 133 volumes to date, the Jamey Aebersold Play-A-Long series has made some small changes in content to accommodate the needs of vocalists. The first edition of Volume 1 was subtitled “For All Instrumentalists”. Eleven years later, the publication of Volume 12 (Barron, Carter & Riley, 1978) included lyrics and was labeled “For All Instrumentalists and Vocalists” (M. Eve, personal communication, January 18, 2008). Further concessions for singers were made 25 years later in Volume 107, Singers! It Had to Be You (Wheeler, Higgins & Allee, 2003). “Designed with vocalists in mind” (p. ii), Jennifer Barnes explains, in her introduction, the reasons for the changes:

While many male vocalists have the ability to sing standards in the original written key, a majority of female vocalists find those keys too high to be comfortable, particularly when trying to achieve jazz phrasing with conversational-style delivery like great jazz vocalists throughout history.

(Jennifer Barnes in Wheeler et al., 2003, p. ii)

The lack of consideration of keys for female singers in the previous 94 volumes for “all instrumentalists and vocalists” appears to be a major educational oversight given the predominance of women in the role of jazz singer (Cartwright, 2001; Pellegrinelli, 2005, p. 95). Jazz instrumentalists have noted the need to alter the keys of jazz standards for singers. For example, Fred Hersch (in Conrad, 2010, p. 52) advises young pianists to work with singers because, “You will learn to play things in odd keys”. His recommendation acknowledges that the keys of jazz standards are often adjusted for singers. Another example is found in audio recordings. Ella Fitzgerald’s rendition of In a Mellow Tone (Ellington & Gabler, 1995, track 5) was recorded in the key of C, not in the standard key A flat as notated in The New Real Book Volume 3 (Sher, 1995, p. 170). The overall observation regarding the Aebersold series is that the participation of vocalists
was at first unacknowledged, and then slow to be implemented.

The formulation of vocal improvisation books as separate publications emerged some 36 years after the first instrumental texts. They were designed with the purpose of addressing the vocalist’s special needs (e.g., Berkman, 2009, p. i; Coker & Baker, 1981, pp. 3–4; Weir, 2001, pp. 11–14). One of the earliest publications for vocalists was *The Bert Konowitz Vocal Improvisation Method* (Konowitz, 1971) which prescribes melodic, rhythmic and harmonic exercises for incorporating improvising into jazz choir rehearsals. Nearly a decade later, Lea (1980) contributed to the literature with *How to Sing Jazz: Learn to Improvise in the Styles of the Jazz Greats*. Her book presents largely as a musical analysis and comparison of a series of two bar extracts from jazz standards by different singers. The extracts are confined to interpretations of the head which contains lyrics. She offers no discussion of scatting.

Coker and Baker (1981) produced an extensive text entitled *Vocal Improvisation – An Instrumental Approach*. Their book emphasises a comprehensive music theory approach in an attempt to equip readers with the tools lacking in singers (1981, p. 3). This is the same justification and method used by Berkman (2009) in his text *The Jazz Singer’s Guidebook*, published some 28 years later.

In contrast to Coker and Baker (1981) and Berkman (2009), DiBlasio’s (1991) *Guide for Jazz and Scat Vocalists* is a brief 19 pages, due possibly to the author’s perspective that “I have never known anyone who has ever learned scat singing from a book” (p. 6). Aside from explanations of music theory, DiBlasio recommends activities such as scatting close to the melody and transcribing instrumental solos (p. 12). Stoloff’s (1996) approach in his book *Scat: Vocal Improvisation Techniques* relies on the teaching of exercises and etudes. These are presumed to impart jazz melodic and rhythmic language to readers and inspire their improvisations. His next publication, *Blues Scatitudes* (2003), presents more etudes for vocalists, this time increasing the emphasis on articulation (through the choice of syllables) as a means to reinforce rhythmic grooves. Stoloff’s (2012) third book, *Vocal Improvisation: An Instru-Vocal
Approach for Soloists, Groups and Choirs, adds elementary exercises to build confidence for exploring improvising in group settings. Overall, Stoloff’s books present an active way for vocal students to experience jazz language, engage in improvising using provided accompaniments, explore the connection between syllables and rhythm, and familiarise themselves with a variety of rhythmic feels and harmonic progressions.

The approach used by Weir’s (2001) text, Vocal Improvisation, blends a music theory approach and practical exercises on a compact disc. She includes discussions of artistic choices, practice suggestions, recommendations for listening and transcribing, and interviews with renowned jazz singers. Another instructional recording that was designed for improvising singers is Rhiannon’s Flight (2000). It emphasises an aural-imitative approach. Rather than engaging in conscious musical analysis, Rhiannon approaches the task by encouraging students to listen and experiment with improvising over the grooves and changes in several musical genres.

Fredrickson’s (2003) “scat singing method” emphasises an aural approach and presents elements such as scat syllables, rhythm and melody as isolated modules before integrating them. He bases his approach on the philosophy that “if you isolate the elements and practice them separately, you are more likely to achieve the proficiency that you desire in vocal improvisation” (1994, p. 23). His premise runs contrary to the research of May (2003) who argues that although the complexity of jazz pedagogically requires some breaking down of components, the multiple skills “should be developed simultaneously rather than in a sequential fashion” (p. 255).

There are three other vocal jazz instructional texts of relevance which include improvisation as one section of the book (Clayton, 2001; Zegree, 2002; Spradling, 2007). In contrast to Coker and Baker’s (1981) rigorous music theory approach, Clayton’s (2001) Sing Your Story encourages singers to gain only a basic understanding of harmony and then improvise to the accompanying CD, with the philosophy of “just keep doing it” (2001, p. 45). Zegree (2002), in The Complete Guide to Teaching Vocal
Jazz, generally promotes the pedagogical approach of listening and imitating, although he does also recommend transcribing recorded solos to “study and analyse the specific note choices” (p. 55). He assumes students already possess the necessary skills and understanding in music theory to do so. The segment on improvisation in Spradling’s (2007) book Jazz Singing: Developing Artistry and Authenticity, is written by Binek. Binek analyses six vocal solos of jazz greats and extracts ten commonalities which singers can use in their development. Although the information is not presented as an instructional method, the clarity of the list lends itself to application by educators.

In an effort to assist educators in the United States to teach improvisation, Madura (1999) produced Getting Started with Vocal Improvisation. The text spans several musical genres, including jazz. In conjunction with mastering scat syllables, repertoire, rhythmic and melodic elements, Madura recommends students gain extensive experience with listening to and imitating jazz.

The emphasis on listening is adopted by Niemack (2004) in Hear it and Sing it. The theoretical principles of jazz scales are supplied, however the emphasis is placed on hearing them before understanding them. Niemack’s introduction details her personal journey as a vocalist through learning to improvise by ear to improvising using theory. She then discovered that “all the theoretical training in the world was useless if I couldn’t hear it and I had to hear it to be able to sing it” (p. 5). As a result, she returned to learning by ear. Niemack’s journey encapsulates a basic difficulty for vocalists of applying theoretical approaches that require conceptualising and applying exercises in absolute pitch. The significance of the difference may be paramount if this thesis shows that the reduced motor feedback of vocalists interferes with this pedagogical approach.

One discrepancy identified in a review of improvisation instructional books and resources is the perceived relevance to singers of the 12 key approach. The 12 key approach, as described in Berliner (1994, p. 82,) refers to a practice strategy often adopted by jazz musicians of playing a musical motif, scale, arpeggio or song in all
twelve tonalities. The process is credited with assisting musicians to master the motor programs for playing buttons, keys and strings (e.g., Botana & Correa, 1993; Coker, Casale, Campbell & Greene, 1970, p. i; Matteson, 1980, p. 98). It is also considered by some to be a fundamental skill that enables jazz musicians to play competently in any key (e.g., Berliner, 1994, p. 82; Coker, 1987, p. 16). Multiple instruction books have been developed on this principle (e.g., Weiskopf, 2000; Coker, Casale, Campbell & Greene, 1970; Rawlins, 2001). Vocal educators, however, appear divided on the relevance of the practice for singers, given that the singer’s lack of buttons, keys or strings discounts a need to think in absolute pitch (e.g., Lapin in Greennagel, 1997, p. 40, compared to Weir, 2003, p. 55).

The conflict focuses primarily on the assumed relevance or irrelevance of vocalists mastering motor schema in absolute pitch across multiple keys. As discussed earlier, Berkowitz (2010, pp. 39–46) argues that the 12 key approach is a valuable means to input knowledge explicitly. Repetition then progresses the tonal relationships of the formulae to the implicit memory, ready for automated access during improvising (Berkowitz, 2010, p. 78). It is this additional gain of the approach rather than the more obvious motor programming need to master “fingering” that may be overlooked. In light of this perspective, discounting the 12 key approach for vocalists may be a significant omission from their improvisation education. The difference in the perceived value of the exercise by instrumental and vocal educators invites exploration relevant to this thesis.

In summary, the books and resources designed as instructional methods in vocal improvisation reflect a general awareness that vocalists have unique needs which are being overlooked in general texts for all musicians. So far, the resources, with the exception of Madura’s book (1999), have relied mainly on the authors’ observations and opinions of vocal idiosyncrasies. Future instructional texts and recordings may benefit from clarification of the unique characteristics of vocalists provided by this thesis. In addition, the debate over the aural-imitative versus the theoretical approach to vocal pedagogy may gain from illumination of the difficulties the latter method
creates for musicians whose reduced motor feedback discourages them from thinking in absolute pitch.

Vocal Improvisation Educational Articles

A wide variety of articles concerning vocal improvising can be found in music education journals (e.g., Anderson, 1980; Borla, 1988; Freytag, 2002; Pellegrinelli, 2001; Segal-Garcia, 2007). Those located in choral journals (e.g., Capello, 2004; Freer, 2010; Marcy, 2006) focus generally on encouraging conductors to incorporate improvising into their jazz repertoire, and on the conflict in goals between a unified choral ensemble sound and the personal, unique voice of improvisers. In other music education journals, several articles come to the foreground with examples of how differentiations between instrumentalists and vocalists are evident in thought and practice.

The title of the Aitken and Aebersold (1983) article, *Vocal Jazz Improvisation: An Instrumental Approach*, places instrumental and vocal approaches in immediate juxtaposition, reflecting a difference between the musicians. As discussed in Chapter 1, there is a subtle awkwardness in the article demonstrating a lack of consistency in the authors’ thinking on the impact of differences. The authors make recommendations of how vocalists may achieve an instrumental approach by “mentally thinking of the keyboard” (p. 9) and selecting scat syllables that “imitate both the sound and the articulation of the instrument” (p. 9). On examination, these strategies are not so much “instrumental” approaches as compensations and adjustment for what is innately different in singers. In essence, while the overall intention of Aitken and Aebersold’s article is to recommend vocalists receive the “very same” (p. 8) training as instrumentalists in improvisation, the final product adds weight subversively to the opposing view that differences exist and they have pedagogical implications.

DiBlasio’s (1996) article, recounting his teaching methods for vocal improvisation, also highlights inadvertently dissimilarities from instrumentalists despite his conclusion that “there is no difference” (p. 35). In structuring his classes at a jazz camp, DiBlasio
altered his lesson plan to accommodate singers who, unlike instrumentalists, “don’t listen to jazz, don’t know any jazz singers, [and] don’t know any chords or melodies” (p. 35). His solution that singers should “do the same work that instrumentalists do” (p. 35), assumes that there are no pre-existing factors that explain the vocalists’ absence of knowledge other than a lack of work. The deeper enquiry offered in this thesis will assist ascertaining if DiBlasio’s solution is as simple as he supposes.

In her article *Practice Concepts for Vocal Improvisation*, Weir (2003) cites three differences between vocalists and instrumentalists. First, she points out that “most vocalists don’t practice improvisation nearly as much as good players do” (p. 54). Weir believes there is no reason for the discrepancy to exist if the singer takes frequent breaks. Secondly, Weir notes that singers are often left out of jam sessions. If her assertion can be verified statistically, it can be further explored to discover why it occurs. Its possible impact on development can then be measured. Significant discussion of singers is noticeably absent in Nelson’s (2011) study of jam sessions. Vocalists are not cited as a delimitation of the study yet they are hardly mentioned. The references are restricted to an opening illustration (p.2), a reference to changing the keys (p. 108), a reference to singers attempting to solicit employment (p. 160), and a comparison that some jam session players who are not unified in their goals are “united by their dislike for the vocalist that sits in…” (p. 159). It is possible that Nelson uses the term “musician” to intentionally exclude vocalists from the study. This cannot be confirmed because he does not define the term. Additionally, there are no discussions that use “singers” and “musicians” in sufficient proximity to reveal his inclusive or exclusive intent. In all, the absence of vocal improvisers from the historical institution of jam sessions, as Weir suggests, and indeed, their absence in research on jam sessions (e.g., Nelson, 2011) is pertinent to this thesis.

The third differentiation Weir (2003) makes in the article is that instrumental solos are more harmonically sophisticated than vocal solos. Again, statistical support for this assertion needs to be established before further research can be conducted to explain why this difference has occurred.
Another general theme arising in music education articles is an awkward positioning of jazz vocalists in tertiary institutions. Formalised jazz improvisation education for all musicians has progressed through a difficult transition in tertiary institutions. It was initially opposed by both musical academia and professional jazz musicians alike but now has a degree of acknowledgement and acceptance (Prouty, 2008). One common discourse is a perceived contradiction in jazz pedagogy of fostering individuality in institutionalised settings (e.g., Parsonage, Frost Fadnes & Taylor 2007, p. 298; Haines, 2003; Louth, 2012; Murphy, 2009, pp. 180–182).

As a subset within jazz studies, vocal improvisation appears to be under additional strain in its position in institutions. Bennett and Feinberg (1996) cite an exclusion of singers from tertiary jazz courses (p. 66), a resistance towards singers by the instrumental jazz faculty (p. 67), and a lack of experienced, professional vocal jazz faculty who can introduce changes to a curriculum dominated by classical voice teachers (p. 67). The background training of jazz voice teachers in tertiary institutions is further speculated upon by Spradling (2000) and Campbell (1997). Spradling (2000) reports the predominance of jazz voice teachers being “crossover” teachers with their origins in classical training (2000, p. 60) or in jazz instrumental teaching (2000, p. 63). Campbell (1997) concurs that many vocal jazz teachers “are really instrumentalists who have fallen in love with vocal jazz” and who do not possess the knowledge to train jazz singers adequately (p. 70). In light of Bartlett’s (2010) list of 11 differences between classical and jazz vocal techniques and Spradling’s (1986) list of 27 differences, classical teachers and instrumental teachers may indeed be ill-equipped for the role of jazz voice teacher. Jazz education may benefit from investigating if this trend in teacher background is a significant difference between the vocal and instrumental learning experience, and what impact, if any, it has on vocal jazz improvisation education.
The term audiation was coined by music educator Edwin Gordon in the latter part of the last century, although the concept has been present in music literature for considerably longer. Also known as inner hearing, pre-hearing and auditory imagery, audiation refers to the process of comprehending music when no physical sound is present. Gordon (1999) explains:

Audiation is to music what thought is to language...Audiation takes place when we hear and understand in our minds music that we have just heard performed or have heard performed sometime in the past...We also audiate when we hear and understand in our minds music that we may or may not have heard but are reading in notation or are composing or improvising. (p. 42)

The use of audiation by improvising musicians is well observed in jazz literature (e.g., Berliner, 1994, p. 263; Coker, Casale, Campbell & Greene, 1970, p. i; Enstice & Stockhouse, 2004, p. 164; Kratus, 1991, p. 38; Parsonage, Frost Fadnes & Taylor, 2007, p. 306; Sawyer, 1992, pp. 256—257; Wiskirchen, 1975, p. 74). Wadsworth-Walker (2005, p. 164) and Niemack (2004, pp. 5–6) point out that vocalists are dependent on audiation for the additional purpose of pitching notes. In the absence of visual and tactile feedback, vocal motor programs are constructed from kinaesthetic and auditory feedback (Larson, Altman, Lui & Hain, 2008; Murbe, Pabst, Hofmann & Sundberg, 2002). In application, they utilise the skill of “hearing the next tone in advance” (Sundberg, 1987, p. 58) to produce the prephonatory tuning process. To put it simply, vocalists audiate intended notes prior to phonation in order to pitch them accurately.

In contrast, audiation is a process that instrumentalists may omit when playing. For example, jazz pianist and singer Michele Weir (in Wadsworth-Walker, 2005, p. 170) reports, “I can play some things I can’t hear very well yet”. Her comment shows that she is able to bypass audiation and use other sensory feedback to implement motor
programs when pitching intended notes. Likewise, Berliner (1994, p. 234) observes how some instrumentalists pre-plan small sections of improvised solos where the harmonic progressions are difficult because “it is not enough for them to rely on their ears”. Additionally, Watson’s (2010a) study noted that “several” of the instrumentalists he interviewed were “at times not fully aware of the sounds they are about to play” during improvising and experienced “unexpected” sounds (p. 117). These illustrations raise questions over whether bypassing audiation, particularly in the early stage of learning to improvise, has advantages for instrumentalists that vocalists may not be able to access.

As yet there is no study measuring the impact on improvising of the vocalist’s perceived need to audiate compared to the instrumentalist’s option to audiate. Such research requires first establishing whether this difference exists and also if it has pedagogical implications.

*The Human Instrument*

It is appropriate to acknowledge how literature addresses the human aspect of the vocal instrument. Kent and Ball (2000, p. 3) attribute an individuality in each voice to “various anatomical, physiological, psychological, cultural, sociolinguistic, and behavioral factors”. Some vocal jazz education texts refer briefly to how such elements affect singing (e.g., Coker & Baker, 1981, p. 11; Spradling, 2007, pp. 61–64; Stoloff, 2012, p. 1; Weir, 2001, p. 23). Detailed considerations, however, are found in more generalised writings on voice. Discussions of vocal anatomy and physiology are central to the works of Thurman and Welch (2000), Titze (2000) and Sundberg (1987). They show that variations in the human apparatus and its function produce innumerable variations in pitch, timbre, and loudness. Kent and Ball’s (2000) and Nair’s (1999) analyses of voice qualities quantify these effects acoustically. In addition to these physical influences on voice, Barthes (1985), Potter (1998) and Frith (1995) consider how sociological and psychological factors interact to communicate individuality in performance. The voice’s ability to communicate the emotions of its user (Scherer,
1995; Juslin & Laukka, 2003) further personalises vocal sound. The underlying theme emerging from the collection of works is that the human body is an integral contributor to vocal performance. It is this contribution that is at the heart of what makes each voice unique and distinct from other musical instruments.

**Jazz Professional Practice Literature**

**Renowned Jazz Singers**

One popular focus in jazz improvisation professional practice literature is to examine the life and performance output of renowned jazz musicians. Pellegrinelli notes that jazz history has long suffered from a historiographic emphasis on instrumental music (2005, p. 143). More recent publications, however, have offered some counterbalance with their collections of jazz singers’ histories (e.g., Crowther & Pinfold, 1997; Friedwald, 1992; Pleasants, 1974; Roland, 1999) and individual biographies (e.g., Billie Holiday by Holiday and Dufty, 1956; Louis Armstrong by Collier, 1983; Ella Fitzgerald by Nicholson, 1995; Carmen McRae by Gourse, 2001b; Dinah Washington by Cohodas, 2004). Articles on renowned singers can also be found in professional magazines (e.g., Bobby McFerrin in Aitken, 1987; Diana Krall in Tini, 1997; Kevin Mahogany in Bourne, 1996; Chris McNulty in Bedford, 2006; Kurt Elling in Nemeyer, 2008b; Jon Hendricks in Bourne, 1999; Anita Wardell in Ansell, 2008). These works, alongside a handful of research studies (Cartwright, 1998; Enstice & Stockhouse, 2004; Grime 1983; Pellegrinelli, 2005; Reid, 2002), present the opportunity to trawl historically for references to differences in the practices or experiences of singers and instrumentalists. As will be shown in the third section of this chapter and in Appendix A, the exercise garnered many relevant citations.

**Music and Communication**

Speaking is often used by musicians as an analogy of improvising (e.g., Berliner, 1994, pp. 401, 417; McLean, 1996, p. 36; Monson, 1994, p. 313; Velleman, 1978).

The capacity of music to communicate meaning is well discussed in literature (e.g., Monson, 1996; Robinson, 1997; Storr, 1997; Tolbert, 2001). Although music, as Janata (2004, p. 203) illustrates, lacks the precision of linguistics for ordering home delivered pepperoni pizza, it is able to prime certain words semantically (Koelsch, Kasper, Sammler, Schulze, Gunter & Friederici, 2004) and express emotions (Miell, MacDonald & Hargreaves, 2005, p. 1; Gordon, 1999, p. 42; Baker, 1996; Juslin & Persson, 2002, p. 223). These traits create potential conflict for vocalists when there is incongruence between the message of the lyrics and the music (e.g., Janata, 2004, p. 204; Dahl, 1984, p. 99). Blacking’s (1982, p. 21) paper on the topic concludes that when verbal and musical meaning co-exist there is no intrinsic power which ultimately causes one to be the dominant communicator. Rather it is human application, Blacking suggests (1982, p. 21), that places one in subordination to the other.

Examples of humans prioritising either lyrics or music are found in the jazz community. It appears vocalists commonly esteem the former and instrumentalists, the latter. For example, according to vocalist Mel Torme, the lyrics are “ninety-nine and eight tenths of what a song is all about”. He describes the melody as “just the frosting” while “the words are the cake” (in Grime, 1983, p. 103). Singer Abbey Lincoln shares his perspective declaring, “Why would I compete with a horn? A horn can’t talk. It can’t say a word. I’m a singer, and I tell a story. I wouldn’t have it any other way” (in Enstice
Voice teacher Cooper (2003, p. 156) describes jazz singing as “an art that is founded on insightful interpretation of text”. Burwell’s (2006, p. 345) findings that voice teachers frequently discuss the delivery of the text at the expense of the music itself supports the perceived emphasis on text.

Instrumentalists, in contrast to singers, often espouse the virtues of music above lyrics. Pellegrinelli (2005, p. 344) describes a tendency of instrumentalists and the jazz media to regard instrumentalists as “pure” jazz musicians. Coker (Aitken & Aebersold, 1983, p. 73) shares the perspective, describing lyrics as a “distraction” from “pure music”. Pianist Dave Frishberg (in Grime, 1983, p. 105) argues that the beauty of the song Misty (Sher, 1988, p. 434) is not the lyrics but the mood of the song. “For a singer to get up there and sing it meaningfully, with gestures, and try to put some kind of heartfelt emotion into ‘I get misty whenever you’re near’ is ludicrous...Are we in this for self-expression, or for musical expression?”

The perceived difference in emphasis placed by the musician on lyrics or music is seen to be removed when scat syllables replace text in improvisation. Bauer (2001, p. 303) writes that vocalists who adopt scat syllables “venture into the realm of so called ‘absolute’ music where musical sounds are apparently free of the extra-musical associations that words create, a realm typically identified with instrumental music”. Likewise, Edwards (2002, p. 620), in recounting the popular myth that Louis Armstrong invented scat when he dropped his music, describes it as “the unexpected loss of the lyrics that finally proves enabling”. Dahl (1984, p. 100) also notes the rise of a generation of singers who pay less attention to lyrics and dispose of the “encumbrance” of words. Similarly, Berliner (1994, p. 126) describes an “increased musical inventiveness” in singers who sacrifice the priority of text for musical goals. Wadsworth-Walker (2005, p. 121) also observes the removal of lyrics frees singers from enslavement of syllabic accents and precise diction required for their lyrics to be comprehended by an audience.
The perception that replacing lyrics with scat syllables eliminates all ramifications of vocalists’ additional communicative responsibilities is an assumption requiring investigation. The literature provides examples suggesting the exchange may not be so unencumbered. Wadsworth-Walker’s (2005, pp. 110, 121) observes the singer’s habit of articulating clear, discrete, recognizable syllables can be imposed on scat syllables and thus disrupts the flowing melodic line of improvisation (Wadsworth-Walker, 2005, p. 121). Likewise controlling the placement of accents may be a more complicated process for vocalists than instrumentalists given the acoustic spectrum of phonemes naturally accents some more than others (Doscher, 1994, pp. 133–170).

The replacement of lyrics with scat syllables may impose new demands on vocalists. The choice of appropriate syllables is often touted as being paramount to the success of the improvisation (e.g., Madura, 1992, p. 148; DiBlasio, 1996, p. 35; Aitken & Aebersold, 1983, pp. 9–10). Is the acquisition of this appropriate scat syllable vocabulary and the skill in applying it as simple as copying vocal or instrumental solos as some suggest (e.g., Aitken & Aebersold, 1983, pp. 9–10; DiBlasio, 1996, p. 35)? This is only one question in a larger puzzle. The relevant questions for this thesis are, does the shift in communication made by replacing text with scat syllables impact on the musical experience of improvising singers? And, if so, are there possible unique pedagogical implications for vocal improvisers?

**Gender**

Gender issues arise commonly in jazz discourse (Heble, A., 2000, pp. 141–165; Tucker, 2001; Rustin & Tucker, 2008). Heble (2000) argues that gendering in music is “the product of culturally prescribed roles, assumptions and expectations” with “real material consequences for men and women performing artists” (pp. 147–148). Pellegrinelli (2005) provides an extensive discussion on the topic and concludes that the role of the jazz singer is gendered female while the instrumentalist is gendered male (pp. 97, 368). In discussing improvisation, Green (1997, p. 113) explains, “The
idea of a woman mentally manipulating or controlling music is incommensurable and unacceptable, because women cannot be understood to retain their dependent, bodily femininity at the same time as producing a cerebral and potentially autonomous work of genius”. Wehr-Flowers’ (2006) research found that females are less willing to attempt jazz improvisation than are males. Like Green, she suggests social psychology may affect women’s decision to attempt improvising. She cites their lower level of confidence, greater anxiety and less self efficacy as contributing to their lack of willingness compared to their male counterparts.

Green (1997, p. 108) also points out that the conflict of reconciling improvisation with femininity impacts on women’s access to important informal training forums. Watrous (1994) provides an example:

[The bandstand] is where all the things that are practiced at home—the transcriptions from records, the book learning—get applied to the art of improvising in real time...The lessons about deportment, leadership, musical standards and the interplay of performers that sum up jazz’s history are found in the hand of the elders. If the elders don’t hire women, which they often don’t, women will not be part of the process. (p. 234)

The relevance of gender to this thesis concerns whether it impacts consistently on the experiences of improvising vocalists, thereby creating a significant difference between singers and players.

The literature suggests gender issues in jazz may impact on employment opportunities for women (e.g., Potter, 1998, pp. 106–108; Heble, 2000, pp. 155–156), which may in turn affect their artistic development. Cassandra Wilson reported she found it difficult in New York to “step inside of the Wynton Marsalis crowd” because “it was like, ah, ‘little girl, nice, cute girl singer’” (Wilson in Enstice & Stockhouse, 2004, p. 342).
The professional literature also shows that women’s perceived role in the jazz band may be linked to their physical appearance. Instrumentalist Dick Fairweather (in Grime, 1983) gives an example:

I think musicians liked [Lee Wiley] because her rhythmic concept was very nice and fluid and easy. And, for her time, like it or not, she was sexual, which a lot of people thought was an important aspect of what girl singers did. (p. 44)

Cleo Lane (in Grime, 1983) reflects on her own experience:

Really, in those days, a singer was a sex symbol, sitting there all night to attract people. But the Seven wanted a good singer, she could look like anything as long as she could sing. But in the end they realized that they wanted both, a good singer and a sex symbol. [emphasis in the original] (p. 76)

A further difficulty experienced by women in jazz performance is the difficulty of being considered on the merit of performance without reference to their appearance (Green, 1997, p. 40). Jazz singer and pianist Diana Krall (in Enstice & Stockhouse, 2004) provides an example:

Lately, I’ve had a problem, because you’re not supposed to be attractive. “You’re only successful ‘cause you’re a white, blond, girl-next-door type.” “Girl next door meets sex kitten,” was one quote in the paper. A put-down. I’m frustrated because my photographs in some instances are too glamorous for certain publications. I can’t be a serious artist because of my looks; or I’m only successful because of my looks... Look, you know, I gave the most athletic wind-blown pictures, like in the pouring rain, for some magazine, and it was still too pretty for people. I thought, “Okay, let me get a cigarette and I won’t shave my armpits and then I’ll have more credibility as an artist”. (pp. 188–189)

Singer Cassandra Wilson recounts her own frustration with wanting “desperately to be
inside of [the jazz] world, not merely being an ornamentation” but found “You can’t enter into that world if you are dolled up” (Wilson in Enstice & Stockhouse, 2004, p. 344). Singer Shelia Jordan also had difficulty escaping an assessment of her appearance as two different reviews of one concert showed: “One said I looked great but I didn’t fulfill my capacity; in other words, I didn’t sing that good, but I sure looked good. The other one said I didn’t look too hot but, boy, could I sing.” (Jordan in Dahl, 1984, p. 242). These examples show, as Green concludes (1997, pp. 230–258), that the element of display is frequently unseparated from female performance.

Overall, professional literature provides examples of gender issues in jazz improvisation manifesting in the gendering of role, an impact on opportunities, and an inability to separate a judgement of physical appearance from female performance. Tucker’s (2001) paper alerts readers to the omission and marginalisation of women from jazz history, such as observed in the lauded documentary Jazz (Burns & Novick, 2002). She argues such treatments reinforce a resistance to gender analysis in jazz and “discourag[es] scholars most likely to produce new frameworks” (Tucker, 2001, p. 377). Heeding Tucker’s warning, this thesis seeks to explore whether the impact of gender upon the experiences of jazz vocalists has the potential to impact on their experiences of being an improviser. This generates further pedagogical implications for jazz education.

The Australian Jazz Scene

In the interests of understanding the environment in which this thesis is situated, a brief discussion of the Australian jazz scene is offered here. Whiteoak (1999) chronicles the history of jazz in Australia from where it first appears as a novelty performed as part of vaudeville acts. The formation of The Jazz Band in 1918 was likely an experiment, sending up the latest American craze with probably “little concern for authenticity” (Whiteoak, 1999. p. 180). Whiteoak cites the arrival in Australia of the first American jazz band in 1923 as creating a turning point where work for Australian bands began to shift from novelty acts to dance musicians (p. 170).
Whiteoak (1999) explains the component of improvisation in jazz was lost initially on Australian musicians. Improvised solos by American musicians were notated and collated into “jazz break” books for all jazz instruments. Musicians would learn and insert them into songs, often with unrelated motivic material (pp. 212, 215). Likewise, musicians tended to listen to recordings in order to perform an exact recreation of a solo rather than to absorb musical ideas.

Australian jazz continued to evolve through the 1930s with the growing access to recordings and the increase in understanding of the nature and attraction of improvisation. One of the country’s earliest international successes was Graeme Bell, who toured Europe with his band between 1947 and 1952 (Carr, Fairweather & Priestley, 2000, p. 57). Critics of the time attributed the band’s distinctive, fresh style to the musicians’ isolated development in Australia (Bouchard, 2000, p. 56). Isolation also appears to have been the motivation in the 1940s for the formation of the world’s first jazz festival. The gathering in Melbourne was organised because, as Graeme Bell explained, “we’d heard about bands in Adelaide, Hobart and Sydney, but we’d never met” (Jackson, 1996, p. 12).

In 1973, the Sydney Conservatorium of Music became the first tertiary institution in Australia to offer jazz education (Burrows, 1988, p. 28). By 1988, the program consisted of fifteen staff teaching a two year diploma, averaging an annual enrolment of 60 full-time students. Eight other tertiary institutions also offered jazz courses by that time.

The effect of globalisation over the last century appears to have done much to smooth the previously distinct developments of jazz in Australia that arose from geographical isolation. Today, Australian artists perform internationally and reciprocal performances by visiting artists can be attended. Universities continue to offer opportunities for the tertiary study of jazz. Advocacy organisations, such as Jazz Australia, combined with a
multitude of jazz festivals, such as those hosted at Noosa, Wangaratta, Melbourne and The Valley, facilitate wellbeing in the art. With Australia’s current population one fourteenth the size of the United States, the nation’s jazz industry is naturally smaller than the birth place of jazz. It otherwise shares similar attributes today and contributes ably on the world stage (Shand, 2009).

Investigation into jazz improvisation in Australia is a small but developing stream of research (e.g., Jones, 1996; Kostromin, 1996; Whiteoak, 1999). Scholarly writings on the topic that centre on pedagogical perspectives are confined currently to masters theses (e.g., Forster, 2011; Freeman, 2007; Reid, 2007; Rettke, 2008). To date, research into vocal jazz improvisation pedagogy practices has not been undertaken in Australia. It is an unexplored territory into which this thesis will venture.

Theoretical Frameworks

The discussion so far positions the thesis in the relevant literature. A lens can now be applied to view any theoretical frameworks that arise in this research. The process entails a preliminary discussion of frameworks in music research, followed by an examination of their applicability to the current research problem.

Theory is purported to be central to research regardless of whether or not it is cited explicitly (Mason, 2002, p. 179–181). The need to identify theoretical frameworks in music research has been well articulated (e.g., Cady, 1992; Heller & O’Connor, pp. 39–40; Jorgensen, 2009, p. 415; Reimer, 1992; Taetle & Cutietta, 2002, pp. 293–294) and yet researchers have been slow to respond (Miksza & Johnson, 2012, p. 16). Difficulties in meeting the demand may rise from discrepancies in defining the term (Cady, 1992, pp. 61–62; Miksza & Johnson, 2012, p. 18) and variations in the “levels” in which the term is applied (Anfara, 2008, p. 869; Neuman, 2003, pp. 48–49, 61–62; Jorgensen, 2009, p. 412). These complexities are visible in a study by Miksza and Johnson (2012) that tallies all the theoretical frameworks cited in articles in the *Journal of Research in Music Education* between 1979 and 2009. The authors’ list of frameworks includes
application to new models (e.g., Swanwick’s Model of Musical Cognition, 1988), ideological perspectives (e.g., McClary’s Gender Theory, 1991), and epistemologies (e.g., Vygotsky’s Social Constructivism, 1978). The broad variation in usage creates challenges for researchers who seek to make comparisons and connections across studies.

Comparing frameworks may be further complicated by the complexity of music as a field of study. Researchers draw on theories from multiple disciplines to generate understanding (Cady, 1992, p. 60; Jorgensen, 2009, p. 406). This necessitates that individual researchers have an in-depth knowledge of multiple fields. A further complication is the difficulty of connecting theory with practice. In his chapter, “All Theoried Up and Nowhere To Go”, Reimer (2012) suggests multiple explanations for why theory fails to impact noticeably on the practice of music education. These include a perceived lack of relevance and practitioners’ unfamiliarity with theoretical research. Reimer considers whether reformers of music education should concede to “letting theory go its way, existing practice its way, and settling for the reality that the twain will not meet or will meet only meagerly” (pp. 680–681).

Overall, whether the barriers to considering theoretical frameworks stem from one or multiple obstacles, it appears that explicit discussions are not yet common place in music research. Miksza and Johnson (2012, p. 9) claim that their study is the first to investigate systematically which theoretical frameworks have been cited in music education research. They describe a “relative infrequency” of the inclusion of frameworks in the *Journal of Research in Music Education* between 1979 and 2009 (p. 17), and quantify it as an average of 32% of articles per year (p. 12). Furthermore, the authors note that the thirty year span investigated by the study did not show any increase in citations, despite a rising call from music academics to make theory explicit (p. 16).

Similarly, the jazz improvisation research relevant specifically to this thesis lacks explicit discussion of existing theoretical frameworks. There is, however, a tendency to
create new contextualised models that may be regarded as implicit theoretical frameworks (e.g., Ciorba, 2006; Coy, 1989; Greennagel, 1994; Horowitz, 1994; Madura, 1992; Smith, 2009; Wetzel, 2007). One possible explanation for this trend is found in Smith (2009). In his development of a rating scale for wind jazz improvisation performance, he writes, “jazz improvisation is an extremely complex construct that might be understood better within specific contexts. Continued research focused on revealing what core elements constitute jazz improvisation in a variety of contexts is needed” (p. 230). Smith’s justification suggests inductive reasoning, which progresses thinking in specific contexts through to general principles in broader settings, is a logical approach for unpacking the complex construct of the improvising jazz musician. Perhaps extracting more global theories relies on a pre-existing body of literature examining the minutiae through which connections to other studies can later be made. It is possible that jazz improvisation research is only just now reaching a point where higher levels of theoretical frameworks can be abstracted.

When forming frameworks, one characteristic to consider, as explained by Anfara (2008, p. 872), is their ability to “distort the phenomena being studied by filtering out critical pieces of data”. An example of this problem is evident in Taetle and Cutietta’s (2002) review of learning theories unique to the domain of music (pp. 286–293). The authors describe Edwin Gordon’s “theory of music learning” as centring on “the aural aspect of music” (p. 286) and “reject[ing] the assumption that music involves verbal-type processes” (p. 293). It is possible, however, that by excluding verbal from the musical process of singing, the framework falls into trap described by Anfara as filtering out critical pieces of data. It prompts the question, does the presence of the verbal dimension in singing stimulate differences in music learning processes which vary from the instrumentalist’s experience? Or perhaps more pointedly, has the practice of regarding music without words as absolute music risen as a convenience for research discourse (Blacking, 1982) or with a dedicated argument as to why a verbal foundation should be discounted in all music theories, including those for singers?
Consider now the paper of Miksza and Johnson (2012) where the authors reviewed 726 articles on music education research for theoretical frameworks. The authors describe coding papers as “instrumental” or “choral/vocal” on the basis that the categories reflected the “primary sample characteristics of each study” (p. 11). The categorisation itself may be evidence of a complexity unique to the domain of music. It is possible the phenomenon of “musicians” contains components that are distinctly instrumental and other components that are distinctly vocal.

Literature on jazz improvising research cited in this thesis reveals the same two distinct bodies of studies that are contextualised in either vocal or instrumental settings. The tacit theory that jazz vocalists and instrumentalists exist as a single entity, the “jazz musician”, may distort conclusions when comparing studies. For example, Watson’s (2010b, p. 384) article discusses the results of an instrumental study (cited in Watson as May, 1998) that found previous improvisation study is a predictor of achievement in improvisation. He then juxtaposes the results of a vocal study (i.e., Heil, 2005) that found conversely that it is not a predictor. Watson describes the two results as “conflicting findings” which are “likely due to varied operational definitions, sample sizes and methodologies” (p. 389). He does not consider the additional possibility that both findings may be accurate. The conflict may instead lie in assuming that the experience of the instrumentalists from the first study (as a sample of jazz musicians) equals the experience of the vocal cohort in the second study.

Another example of distortion is evident in Bauer’s (2001) timbral and phonemic analysis of scat solos. The author acknowledges that a large timbral variety is a characteristic of the human voice (p. 304) yet concludes that his analysis “may offer insights that are applicable to instrumental music”. Bauer makes a plausible case for the cross-fertilisation of ideas between instrumentalists and vocalists, and the effectiveness of timbral variety but the conclusion is less convincing that both musicians can therefore wield the same timbral tool. If this had been the case, then Bauer could have used the same framework (Trager-Smith phonemes, cited by Bauer as Smith, 1979) verbatim when analysing vocal and instrumental solos. The phonemic
analysis is used only briefly when discussing the onset of instrumental notes (p. 306) but the tool is otherwise confined to analysing vocal solos. The lack of extension of the framework fully to instrumentalists opens weaknesses in generalised conclusions.

A third example of distortion is evident in Ciorba (2006) who studied 102 instrumentalists when creating a model to predict jazz improvisation achievement. He found that “sight-reading ability” is one of the variables capable of predicting jazz improvisation achievement and consequently recommends that “sight-reading should be a regular part of jazz band and combo rehearsals” (p. 94). These conclusions do not fit well for improvising jazz singers such as Jon Hendricks. Hendricks is quoted in Pellegrinelli (2005, p. 66) as declaring he has no music literacy at all, and yet he is well regarded for his excellence in improvisation achievement (Reid, 2002, p. 52). Ultimately, Ciorba’s research is an example of a contextualised study (sampling instrumentalists only), which was used to develop a theoretical framework (Ciorba’s model) that was then abstracted to the level of application to all improvising jazz musicians. Thus a distortion was produced.

What becomes apparent in examining the studies of Watson (2010b), Bauer (2001) and Ciorba (2006) is that each applied a framework that perceives tacitly that the “jazz musician” is a single entity. Just as Anfara cautioned, their frameworks filter out the variation of the vocal–jazz–musician as distinct from the instrumental–jazz–musician.

In summary, a review of literature relevant to the research problem of this thesis does not reveal a dominant, explicit theoretical framework applied in research on improvising jazz musicians. Instead it reveals a general lacking of overt discussions of frameworks and a tendency to create contextualised new models. Attempts to generalise the models to a higher level of application reveals weaknesses as the frameworks filter out critical differentiations between vocal–jazz–musicians and instrumental–jazz–musicians. This prompts the question, what then are the attributes of improvising jazz vocalists that have been filtered out by the explicit and implicit theoretical frameworks in music research? This question returns the enquiry to the
primary research question of this thesis: How do improvising jazz vocalists differ significantly from their instrumental counterparts?

Summary of Reviewing the Context

The extensive body of writings on jazz improvisation provides multiple avenues for exploring the experiences and development of vocalists and instrumentalists from the perspectives of research, education and professional practice. Review of the literature and theoretical frameworks reveals that vocalists and instrumentalists are often assumed to share universal characteristics yet when this assumption is transferred to practice scenarios, cracks appear. In all, the literature review raises cause for concern about the existing assumption that vocalists are sufficiently similar to instrumentalists that universal pedagogical decisions may be made. The thesis will test the validity of the assumption, explore whether there are significant differences and, if they exist, consider their potential pedagogical implications.

Collation of the Perceived Differences Between Vocalists and Instrumentalists

As demonstrated in the previous section, close examination of the literature surrounding jazz improvisation has revealed omissions and weaknesses. Research and education practice continue to be constructed upon the questionable assumption that vocalists and instrumentalists share sufficient universal characteristics that pedagogical distinction is unwarranted. The acknowledgement of a marked difference in achievement however has pointed logically to the existence of other pre-existing differences. It is in the light of these findings that this thesis again raises its primary research question:

How do improvising jazz vocalists differ significantly from their instrumental counterparts?
This portion of the chapter will put forward further findings from the literature however the presentation will differ from the previous discussion. The extensive body of writings on jazz improvisation research, music education and professional practice already provide multiple references to the existence of differences and how they have been experienced. This thesis can draw upon the pre-existing reservoir of references in its search to answer the primary research question. Consequently, the pre-existing references prompt the first of the three secondary research questions:

What are the differences that have been cited in the research, educational and professional practice literature that distinguish improvising jazz vocalists from instrumentalists?

This section of the chapter will answer the question by presenting a succinct list of differences that have been already observed in literature. The references were encountered by the researcher in the course of reading. They appeared largely as isolated anecdotes in interviews, discussions and papers. Each direct and implied reference to a difference was transcribed successively by the researcher into a master register. In some writings, overt comparisons were made between vocalists and instrumentalists. In other cases, one author’s comment on vocalists contradicted another author’s comment on instrumentalists thus illuminating a potential point of difference. Once the compilation was complete, the findings were sorted, and multiple references to the same concept were grouped. Each grouping was then summarised into a single concise statement. The process generated 37 statements of the perceived differences between vocalists and instrumentalists.

For clarity and brevity, only the final 37 statements of perceived differences are presented in this chapter (see Table 1). The full list of references is tabulated in the appendix (See Appendix A). The order the statements are listed has no significance.
Table 1. Perceived differences between vocalists and instrumentalists.

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<tr>
<td>1)</td>
<td>There is a perceived difference between the amount of music training that vocalists and instrumentalists receive.</td>
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<td>2)</td>
<td>There is a perceived difference between the content of music training that vocalists and instrumentalists receive.</td>
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<td>3)</td>
<td>There is a perceived difference between the amount of time vocalists and instrumentalists spend listening to jazz.</td>
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<td>4)</td>
<td>There is a perceived difference between the amount of jazz improvising experience vocalists and instrumentalists have prior to tertiary education.</td>
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<td>5)</td>
<td>There is a perceived difference between the amount of difficulty experienced in changing technique when vocalists and instrumentalists crossover from classical music to jazz.</td>
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<td>6)</td>
<td>There is a perceived difference between the educational background training of teachers who teach jazz to vocalists and instrumentalists.</td>
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<td>7)</td>
<td>There is a perceived difference between the appropriateness of educational resources for improvising jazz vocalists and instrumentalists.</td>
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<td>8)</td>
<td>There is a perceived difference between the level of music literacy of vocalists and instrumentalists.</td>
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<td>9)</td>
<td>There is a perceived difference between the amount of familiarity vocalists and instrumentalists have with musical referents and procedures in jazz improvisation.</td>
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<td>10)</td>
<td>There is a perceived difference between the vocalist’s and instrumentalist’s approach to individual music practice.</td>
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<td>11)</td>
<td>There is a perceived difference between vocalists and instrumentalists in their sense of musical immediacy.</td>
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<td>12)</td>
<td>There is a perceived difference between the amount of time vocalists and instrumentalists spend practising skills for improvising.</td>
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<td>13)</td>
<td>There is a perceived difference between the amount of time vocalists and instrumentalists spend on musical activities which are likely to increase their familiarity with referents and procedures.</td>
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<td>14)</td>
<td>There is a perceived difference between vocalists’ and instrumentalists’ preference for generating ideas when improvising.</td>
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<td>15)</td>
<td>There is a perceived difference between the amount of self judgement that vocalists and instrumentalists experience while improvising.</td>
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<td>16)</td>
<td>There is a perceived difference between the level of risk taken by vocalists and instrumentalists to improvise.</td>
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<td>17)</td>
<td>There is a perceived difference between the amount of motor feedback received by vocalists and instrumentalists during improvising.</td>
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(Table 1. continued)

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<tr>
<td>18</td>
<td>There is a perceived difference between vocalists’ and instrumentalists’ awareness of pitch orientation while improvising.</td>
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<td>19</td>
<td>There is a perceived difference between the use of audiation by vocalists and instrumentalists during skill development.</td>
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<td>20</td>
<td>There is a perceived difference between the importance of communicating lyrics by jazz vocalists and instrumentalists.</td>
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<td>21</td>
<td>There is a perceived difference between the connection of vocalists and instrumentalists with an audience due to lyrics.</td>
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<td>22</td>
<td>There is a perceived difference between the desire for expressive integrity in performance by vocalists and instrumentalists.</td>
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<td>23</td>
<td>There is a perceived difference in the observance of scat syllable conventions in vocal and instrumental performance.</td>
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<td>24</td>
<td>There is a perceived difference in the need for vocalists and instrumentalists to develop a personal vocabulary of scat syllables.</td>
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<td>25</td>
<td>There is a perceived difference in the emphasis placed on visual display in performance for vocalists and instrumentalists.</td>
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<td>26</td>
<td>There is a perceived difference in the emphasis placed on the role of improviser for vocalists and instrumentalists.</td>
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<td>27</td>
<td>There is a perceived difference between the level of motivation in vocalists and instrumentalists to improvise a solo when performing.</td>
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<td>28</td>
<td>There is a perceived difference between the emphasis placed on vocalists and instrumentalists to be entertainers.</td>
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<tr>
<td>29</td>
<td>There is a perceived difference between the level of technical proficiency necessary for jazz vocalists and instrumentalists to be successful jazz musicians.</td>
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<tr>
<td>30</td>
<td>There is a perceived association between gender and whether the musician is a vocalist or an instrumentalist.</td>
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<tr>
<td>31</td>
<td>There is a perceived difference between the amount of performance opportunities at jazz venues for jazz vocalists and instrumentalists.</td>
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<tr>
<td>32</td>
<td>There is a perceived difference between the amount of apprenticeship opportunities for vocalists and instrumentalists.</td>
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<tr>
<td>33</td>
<td>There is a perceived difference between the amount of opportunities for formal jazz education for vocalists and instrumentalists.</td>
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<tr>
<td>34</td>
<td>There is a perceived difference between the amount of jam session opportunities for vocalists and instrumentalists.</td>
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<tr>
<td>35</td>
<td>There is a perceived difference between the amount of performance opportunities for vocalists and instrumentalists when gender is considered.</td>
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<tr>
<td>36</td>
<td>There is a perceived physical difference in the composition and location of instruments and the vocal apparatus.</td>
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<tr>
<td>37</td>
<td>There is a perceived difference in the relevance of the 12 key approach for vocalists and instrumentalists.</td>
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Chapter Summary

Chapter 2: Literature Review has progressed the thesis through three distinct phases on the journey to explore how improvising jazz vocalists differ significantly from instrumentalists. First, the chapter examined the foundational constructs of jazz improvisation and jazz musicians. It then confirmed through literature the validity of the premise that there is a perceived difference in achievement between improvising jazz vocalists and instrumentalists. The confirmation justified instigating a search for evidence of other differences.

Next, the chapter explored the context of the thesis by reviewing the literature of jazz research, jazz education and jazz professional practice, and by considering theoretical frameworks. It gave examples of how the assumption that the characteristics of vocalists and instrumentalists are universal has influenced past pedagogical and research decisions. It argued that if, contrary to the assumption, significant differences exist then an understanding of their natures may reveal pedagogical implications for jazz education.

Finally, the chapter reported incidental references to differences found throughout literature which when collated reveal common threads of thought. The results presented 37 concise statements which represent the differences perceived currently by music researchers, educators and professionals. The statements provide a starting place for the exploration.

In conclusion, Chapter 2 has framed the thesis with direction and justification for new exploration into how improvising jazz vocalists differ significantly from instrumentalists. The means by which this exploration will proceed will be outlined in Chapter 3: Methodology.
Chapter 3: Methodology

The examination of jazz improvisation literature revealed the pervasive assumption that improvising jazz vocalists share universal characteristics with instrumentalists. Investigation showed that when this assumption is applied in pedagogical and research decisions, flaws are evident. Chapter 2 established relevant foundational concepts, reviewed the context of the research and responded to the first of the secondary research questions which asked, “What are the differences that have been cited in the research, educational and professional practice literature that distinguish improvising jazz vocalists from instrumentalists?” References to 37 differences were collated (see Appendix A) and represent an important outcome from the review of three bodies of literature. This collation constituted the first step in addressing the primary purpose of this thesis which is to explore how improvising jazz vocalists differ significantly from instrumentalists.

Mason (2002, pp. 38–39) points out that the validity of a thesis depends on whether the research observes, identifies or measures its stated problem. The aim of Chapter 3 is to make transparent how this thesis will respond to its primary research question by using a research design suited to exploring how vocalists differ from instrumentalists. The chapter will begin with an analysis of the research question to identify its inherent implications for methodology. From there, it will present an overview of the research design and provide details of the selected research instruments and their application. The chapter will explain how the results and discussion will be presented in the subsequent chapters. It will conclude by presenting one of the results from an auxiliary question in the survey. It confirms the premise identified in literature that there is a perceived difference in achievement in jazz improvisation between instrumentalists and vocalists.
Methodology Selection and Rationale

Research questions are regarded frequently to imply a methodology appropriate to answering them (e.g., Bartel, 2006, p. 347; Bloomberg & Volpe, 2008, p. 7; Creswell, 2012, p. 112; Evans & Gruba, 2002, p. 85; Mason, 2002 pp. 25–30; Oliver, 2008, pp. 105–106; Robson, 2002, p. 81; Silverman, 2006, pp. 8–9). For this reason, it is beneficial to re-examine the primary research question of this thesis. The question is as follows:

How do improvising jazz vocalists differ significantly from their instrumentalist counterparts?

The constructs of improvisation and jazz musicians (instrumentalists and vocalists) have already been examined in the previous chapter. The two remaining elements in the question with potential implications for methodology selection are the meanings of the words “how” and “differ significantly”.

The word “how” has several common usages in English language. The first usage asks “in what way” or “by what means” an action occurs. Applying this usage to the thesis would generate the question, “By what means do improvising jazz vocalists differ significantly from their instrumentalist counterparts?” This interpretation suggests it would be appropriate to use numerical methods to measure whether or not a variable is significantly different. In this context, the word “significant” assumes specific statistical connotations that require a measurement of frequency to make the determination.

The second common usage of “how” concerns the quality of an experience (e.g., “How are you feeling?”). Adopting this approach, the research question of the thesis would ask, “What is the quality of the experiences of improvising jazz vocalists that differs significantly from instrumentalists?” This alternative interpretation implies the need for qualitative data to encapsulate the complexity of experiencing differences. In this
setting, the meaning of “differ significantly” does not imply an externally generated, mathematical determination. Bloomberg and Volpe (2008, p. 130) elaborate: “In qualitative research, we do not seek statistical significance that characterizes quantitative research. In qualitative research, what we mean by significance is that something is important, meaningful or potentially useful given what we are trying to find out.” Thus, adopting this interpretation, to “differ significantly” refers to the comparative relevance of each attribute to the understanding of the central research problem.

Evident in these two possible interpretations of the primary research question are two distinct research paradigms, both capable of generating a separate perspective on the differences between improvising vocalists and instrumentalists. Historically, qualitative and quantitative methods have been regarded as dichotomous approaches because of a perception of their ontological differences (Creswell, 2012, p. 537). More recent arguments have regarded the approaches as compatible. For example, Onwuegbuzie and Leech (2005) argue that by “taking the ‘Q’ out of research”, students are free to identify pragmatically the emphasis of their research aim and pursue approaches that best allow for a systematic and coherent understanding of phenomena (p. 290). Likewise, Creswell (2012, p. 22) endorses the generation of dual data types from mixed method designs for the purpose of providing “a better understanding of a research problem than either quantitative or qualitative data by itself”. For this thesis, two complementary courses of enquiry into differences are united under the single purpose of exploration. As a result, a mixed method design that accommodates both interpretations of the research question is not only compatible with the overall aim but desirable for greater illumination in exploration.

Methodology literature supports mixed methods as an effective research design for multitask studies (e.g., Greene, Caracelli & Graham, 1989, p. 269; Mark & Shotland, 1987, p. 98; Johnson & Onwuegbuzie, 2004). The two distinct branches of enquiry in this thesis generate the second and third of the secondary research questions. When couched within the limitations of the study (discussed in Chapter 1) and placed in the
context of the literature review (discussed in Chapter 2), the remaining secondary research questions are as follows:

2. Which of these cited differences are statistically significant differentiations in the observations or experiences of current, professional Australian jazz musicians?

3. How have Australian jazz vocalists and/or tertiary jazz educators experienced these differences?

Question 2 seeks to ascertain by what means improvising jazz vocalists are perceived by Australian jazz musicians to differ from instrumentalists, by quantifying a measure of significance of the 37 variables identified in the literature review. Question 3 then seeks to ascertain the quality of the experience of differences as encountered by jazz vocalists and educators. Thus the generation of these two secondary research questions suggests a multitask approach.

Another way the research implies that mixed methods is an appropriate strategy for the thesis is the overarching aim of exploration. This unifies the two secondary questions under a single directive. Exploratory research is deemed compatible with mixed methods designs because of its broad goals to assess phenomena in a new light, seek new insights, and generate ideas and hypotheses for future research (Robson, 2002, p. 59). Mixed methods, by nature, yield rich, complex data (Madey, 1982, p. 235) which may offer greater opportunity to investigate and understand the unknown.

The third reason why mixed methods is an appropriate strategy for this subject matter is that the design can generate complex data which may better represent the inherent complexities of constructs found in education research. As Bartel (2006, pp. 343–344) argues, “[T]he pursuit of satisfying answers to questions consisting of complex constructs requires greater diversity and multiplicity of method”. Likewise, Madey (1982, p. 235) describes mixed methods as an opportunity to “increase and enhance the information yield and, by so doing, facilitate the process of clarifying and
alleviating information needs.” Creswell and Plano Clark (2011, pp. 11–13) posit that the combining of methods allows for each approach to compensate for the weaknesses of the other, producing enriched data and hence it is a “natural” preference for seeking understanding of a complex world (p. 13).

In summary, an analysis of the research aim and primary research question of this thesis has revealed that a mixed methods approach is an appropriate and effective design for exploring how improvising jazz vocalists differ significantly from instrumentalists. This conclusion was reached for three reasons:

1) The dual interpretations of the word “how” in the primary research question generates two courses of enquiry with contrasting but complementary emphases. United under the single aim of exploration, mixed methods offers this potential for greater depth of understanding than one method alone.

2) Research that has exploration as its central aim benefits from a high yield of data with the broad understanding that the mixed data types can offer.

3) The complexities of mixed data types better accommodate the complexities of constructs found in education research.

Research Design

Considerations of congruency between methodology and the research questions inspired a suitable research design. A two-phase, sequential mixed methods study was constructed to explore how improvising jazz vocalists differ significantly from instrumentalists. The sequential approach allowed the capacity of qualitative data to enlighten the context of the quantitative data results which were obtained first (Creswell & Plano Clark, 2011, p. 12). In Phase 1, a quantitative survey measured the
perceived significant difference of the 37 variables, as identified in the literature review, between Australian jazz vocalists and instrumentalists.

In Phase 2, qualitative interviews probed for understanding of the quality of the perceived differences between improvising jazz vocalists and instrumentalists as experienced by Australian jazz vocal performers and/or tertiary jazz educators. The results from the second phase offered depth in understanding of data generated in the first phase and, when combined, provided a more comprehensive picture of how improvising jazz vocalists differ significantly from their instrumental counterparts. In total, the research design can be represented graphically in Figure 2 (see Figure 2).

*Figure 2. The research design of the thesis.*
Survey Instrument

Survey Design

The Phase 1 quantitative survey instrument was constructed to measure the statistical significance of 37 perceived differences between improvising jazz vocalists and instrumentalists. One qualitative question was also included in the survey. The first draft of the survey used predominantly closed questions in a self-completion, paper-based, questionnaire. Each variable was incorporated in a dedicated question, with some additional questions offering further confirmation for the findings. A table showing the conversion of the variables to survey questions is included in Appendix B (see Appendix B). A pilot of the survey was conducted with 11 participants. This resulted in adjusting the layout to improve readability, rewording one question to remove ambiguity and correcting one grammatical error.

During the course of constructing the questionnaire, developments in online survey software prompted a re-consideration of it by the researcher as a more efficient means of distribution and data collection. Relevant literature was reviewed on the strengths and weaknesses of the approach. After consultation with other researchers experienced in the method, it was considered advantageous to reformat the survey on a website, and use electronic mail and paper-based means to invite participation. The potential of online surveys to save time and cost in distribution and collection was regarded beneficial, as acknowledged by Fowler (2009, p. 83). It is also helpful generally for mixed methods studies which already place substantial demands on researchers (Johnson & Onwuegbuzie, 2004, p. 21). Other advantages included the ability to access “vast numbers of potential subjects” (Couper, 2007, p. S83); the convenience of professional musician networks online for wide distribution (Wright, 2005); the ease in ensuring anonymity; the ability to transfer data directly into a software analysis program thereby reducing time spent inputting results; the removal of transcription errors when inputting results; the removal of difficulties in reading respondents’ handwriting; and the facility to use “skip logic” (i.e., automatic
redirection of respondents to the correct point in the survey dependent on their
answer to a preceding question). *Survey Monkey* was utilised as the software tool for
constructing the online version of the survey. It was selected because of favourable
citations by researchers (e.g., Collier, Johnson & Dellavalle, 2005; Wright, 2005); the
ease of access through online membership; and, its common usage, allowing the
researcher to seek advice from colleagues who had used the program successfully.

One disadvantage of online surveys identified by Fowler (2009, p. 22) is that they
exclude participants who do not have access to the internet. This disadvantage was
circumvented by the paper version of the survey which had already been constructed.
The paper version was offered to participants as an alternative means for
participation. One respondent chose this option. The paper version of the survey is
provided in Appendix C (see Appendix C).

The online version of the survey was piloted with nine jazz musicians. It resulted in one
minor change: An additional page was inserted into the beginning of the survey
warning participants to ensure they scroll down the screen to answer all questions.
The online survey has been printed for inclusion in this thesis (see Appendix D). The
pagination of Appendix D does not reflect how the survey appeared online. The
numbered questions may also misrepresent to readers of the thesis the actual
sequence followed by respondents. In application, the pathway of questions varied
among participants according to their responses to questions. No participant was
required to answer all 54 questions. The use of skip logic circumvented questions that
were irrelevant to some respondents. Other questions were reproduced in two places
but were only answered once as they were encountered on different pathways. They
required separate numbers and hence there appears to be more questions than were
actually asked in application. Skip logic was also used to terminate the survey if the
respondent did not satisfy the four qualifying questions for participation (see Appendix
D, questions 1–4). Appendix E illustrates the possible pathways respondents took in
completing the questionnaire (see Appendix E).
The questions in the survey performed a variety of purposes. Questions 10, 25 and 28c (see Appendix D) were used to confirm foundational concepts and definitions discussed in Chapter 1 and Chapter 2. The functions of other survey questions were to establish eligibility for participation (Questions 1–4); to extract relevant demographic information (Questions 5–6); to measure the 37 variables with closed, list, category or ranking questions (Questions 7–9, 11–24, 26–28b, 28d–34, 36–39, 41–43, 45–53); to seek greater depth on one specific variable by the use of one qualitative question (Question 48); to reroute respondents to appropriate questions (Questions 6, 35, 40, 44); and to generate recruiting options for phase 2 of the research (Questions 26, 54).

Administration

Eligibility for participation in the survey required respondents to be musicians, 18 years or older, who were residing and performing jazz in Australia. A primary round of invitations to participate was sent out simultaneously to three categories of candidates via letters and electronic mail. The invitation (see Appendix F) was sent to individuals and bands listed in the directory of musicians on the Jazz Australia website and other personal websites. Secondly an invitation (see Appendix G) was sent to educators at Australian tertiary institutions offering jazz studies. Thirdly an invitation (see Appendix H) was sent to community jazz organisations and clubs. Flyers were also posted to jazz clubs for distribution (see Appendix I). All candidates were invited to forward the survey to their own contacts utilising social networks through electronic and non-electronic means.

As a result of the mail out, two organisations (Jazz Australia and Perth Jazz Society) posted on their websites a link to the survey. The Hobart Jazz Club responded to the invitation by acknowledging its receipt, forwarding it to their “extensive mailing list” and including it in their newsletter. The editor of Jazzscene offered to include it in a national issue of the publication, and a radio announcer in a regional area offered to broadcast the invitation. Personal electronic mail was received by the researcher from
persons showing interest in the project and an intention to forward the invitation to other associates.

As an anonymous online survey with four qualifying questions built in, distribution of the survey invitations was not tracked intentionally beyond the initial invitation. To observe anonymity, IP addresses were not collected. One of the qualifying questions asked if participants had completed the survey previously. If they indicated they had, they were exited from the survey using skip logic. Monitoring of the survey website permitted daily feedback as to the number of responses being received. By closing, 209 jazz musicians responded to the survey (vocalists, n = 64; instrumentalists, n = 145).

Data collection was generated electronically through Survey Monkey. Data from the sole respondent who opted to complete the paper-based questionnaire were entered into Survey Monkey by a staff member at Griffith University at a time of his choosing. This ensured there was no means to distinguish or to identify the respondent from other participants and thus anonymity was honoured. Results were downloaded progressively in PDF (portable document format) and spreadsheet formats for back up purposes. Another complete download of all data was conducted when the survey officially closed.

Ethics

The research conducted for this degree was required to comply with ethical guidelines designated by the governing university. This included submitting an ethics application and receiving approval for conducting a survey and interviews (University Research Ethics Database Protocol Number: QCM/03/08/HREC. See Appendix J). The survey began with an introduction seeking informed consent from participants (see Appendix D). The introduction indicated to respondents the purpose and nature of the research, that participation was voluntary, that the survey was anonymous, and that IP addresses would not be collected. It further communicated the approximate length of time needed to complete the survey, outlined a risk of discomfort in participating and
offered an avenue for further enquiries or complaints. A list of consenting statements was then presented with the option for the participant to continue if in agreement. The selection of “continue” was labeled as granting consent to participate in the survey. Those choosing to decline were exited from the survey. A different procedure for ethical observance was followed for the interview component of the research. This process will be detailed later in the chapter.

**Data Analysis**

Literature shows that analysis of quantitative data can be assisted by the use of computer software for mathematical computations (Creswell & Plano Clark, 2011, p. 243; Robson, 2002, p. 392). PASW (known previously as SPSS) was selected as the tool for data analysis for several reasons. It had been cited by researchers (e.g., Bell, 2005, p. 201; Collier, Johnson & Dellavalle, 2005; Creswell & Plano Clark, 2011, p. 204; Robson, 2002, pp. 392); it manages large quantities of data easily (Robson, 2002, pp. 392); it is compatible with Survey Monkey for data transference via Excel; and, the software and software support were accessible at the university presiding over the study. The survey results generated in Phase 1 were analysed immediately after collection was completed. Chi square analysis was selected as the appropriate statistical test to identify a difference in the frequency of occurrence between two or more categorical variables (Field, 2009, p. 687; Tilley, 2004, pp. 394–399). As per common practice, the α level was set at 0.05 for all statistical measurements of the quantitative data. The sole qualitative question included in the survey was analysed thematically using the method detailed in the analysis of Phase 2 data.

**Interview Instrument**

**Interview Design**

The aim of Phase 2 of the research was to explore the quality of the differences vocalists experience in jazz improvisation. Interviewing was selected as a compatible
instrument for procuring the desired qualitative data for a comprehensive understanding. The interviews offered the opportunity for participants to respond to the survey findings, offer their insight and personal stories, speculate on causes of the differentiations, and project possible implications for vocal jazz improvisation pedagogy. For this reason, it was necessary to complete the analysis of survey data before the interview instrument was designed.

Questions used previously in the survey were selected and redesigned for use in the interviews. Survey questions 1–6 and 35 were eliminated because the eligibility and demographic data they would provide were already known to the researcher prior to each interview. Question 40 was excluded because it had functioned only for re-routing purposes during the survey. Survey questions 25 and 54 were discounted because their primary purpose had been recruitment for Phase 2. Survey questions 26, 50 and 52 were eliminated because the questions would supply a duplicate of information obtained elsewhere (due to a variation in pathways). Survey questions 41, 42 and 43 were removed because they elicited information exclusively on instrumentalists’ experiences that was not required for Phase 2. The remaining survey questions were transferred into a proforma to be used in structured interviews. The questions were re-worded and extended with open ended components so that the context, possible cause and potential impact of the variable could be explored.

The first draft of the interview instrument utilised structured questions ensuring all the perceived differences identified in the literature review were addressed. Additional introductory questions were inserted to obtain contextual biographical information. A separate list of interview questions was designed specifically for tertiary institution jazz educators who had instrumental backgrounds. It consisted of ten questions which sought information on how improvisation was being taught at their institutions, and asked generally if any notable differentiations had been observed between instrumental and vocal students.
Three pilot interviews of musicians were conducted using the structured interview design. The interviews were audio recorded and later reviewed by the researcher. The interview experience was discussed with the participants after the interview. One participant expressed her disorientation in the sequence of the questions. The researcher also observed a general discontinuity in proceeding to the next question on the list, as it was not necessarily the same point at which the interviewee’s previous response had finished. Opportunities for pursuing natural associations were sacrificed in order to adhere to the scheduled questions. The piloting experience revealed that the use of structured questions had inhibited the flow of the discussion and obscured connections between variables that were deemed to provide relevant insights in exploratory research.

To rectify the problem, a decision was made to change from a structured interview to a semi-structured, guided interview format. As Bell (2005, p. 161) explains, a guided interview provides “freedom to allow the respondents to talk about what is of central significance to them” but gives “some loose structure to ensure all topics which are considered crucial to the study are covered”. A prompt sheet was devised to replace the structured questions. It contained a brief list of subject headings that could be ticked in the order the discussion progressed naturally. This adjustment led to the researcher being able to follow freely the direction of the discussion pursued by the participant with only minimal prompting during the interview. Questions were worded spontaneously and were adjusted intuitively to encourage reflection. The survey results were referred to only occasionally to facilitate discussion on a new topic when all previous avenues on a subject had been pursued to termination. Overall, the semi-structured, guided interview approach produced comfort for the participants and a greater illumination of the connection between variables.

Administration

The interviews were conducted with 22 Australian jazz vocal performers and/or tertiary jazz educators. It was initially considered an important feature of the study
that respondents were identifiable in research output as the purpose of the interview was to gather observations by prominent and proficient jazz musicians. Each interviewee participated in a single, individual interview which lasted between 35 and 90 minutes, with the average interview lasting 73 minutes. Interviews with jazz educators at tertiary institutions in Australia were shorter in length, lasting between 20 and 54 minutes, with an average of 33 minutes. The researcher travelled locally and interstate to the locations of 15 participants. Seven interviews were conducted over the telephone due to the remoteness of some locations, travel expense or incompatible travel schedules. All the interviews conducted in person and over the telephone were recorded simultaneously on two audio devices; an Olympus WS750M and an Edirol R–09. The interviews were transcribed by the researcher and then forwarded via electronic mail to interviewees for verification and alteration.

The initial intention of the research was to interview renowned expert teachers in the field of vocal jazz improvisation, and interview senior jazz educators working at tertiary institutions in Australia. The input of senior jazz educators was sought to garner data on their observations of educating, supervising and coordinating improvising vocalists in tertiary institutions. Background research revealed 16 tertiary institutions in Australia had offered jazz studies at that time. The senior academic staff member of each course was invited to participate. Seven consented to be interviewed. Each participant had primary background training on an instrument but had taught and/or had been responsible for the selection of curriculum studied by vocal jazz improvisation students.

Recruiting renowned expert teachers in the field of vocal jazz improvisation proved a more difficult venture. Problems arose in locating and accessing sufficient candidates due to vocal jazz improvisation being a small field of expertise in Australia. A decision was made to extend the pool of candidates to include some lesser known Australian vocal improvisation practitioners who were considered by their peers to demonstrate proficiency in scat singing without consideration of their teaching experience or public profile. The initial list of potential contacts was generated from survey questions.
Performers who accepted the invitation to be interviewed suggested further candidates whom they regarded as proficient vocal improvisers. The final result was the recruitment of 15 Australian improvising vocalists who consented to be interviewed along with the seven senior jazz educators.

Ethics

Strict procedures were followed to ensure the research met ethics guidelines set out by the governing university body (University Research Ethics Database Protocol Number: QCM/03/08/HREC. See Appendix J). An individual invitation to participate in the interview was mailed to all identified candidates. It outlined briefly the topic of the research and the university affiliation, and outlined administrative procedures. Those who indicated interest in participating were sent an information letter and consent form (see Appendix K) providing greater detail. It included explanations that participation was voluntary, that the interviews were to be audio-recorded and transcribed and that participants would be identifiable in the final output. It also stated the anticipated maximum length of the interview. Candidates were invited to review the consent form at their convenience and contact the researcher if they had further questions. A mutually agreed date and location was then set for the interview.

Prior to starting the interview, the consent form was signed by participants who were interviewed in person. For the telephone interviews, a verbal consent was given and audio recorded. One telephone interviewee provided his consent via electronic mail. Participants were reminded that a transcription of the interview would be sent to them for their final approval prior to analysis. The purpose of this gesture, made known to participants, was to provide them with the opportunity to verify the transcript and delete or alter comments they were concerned might reflect negatively on them. This step was included to protect the personal and professional wellbeing of participants. Fifteen interviewees requested minor changes to their transcript, including minor grammatical or typing errors, and the removal of some identifiers. One requested major changes, clarifying her responses and adding elaboration. Six did not
adopt the option to make changes. All requested alterations were made by the researcher and the transcripts were forwarded a second time to the relevant participants for approval. Once final approval was given, analysis was undertaken.

Data Analysis

Literature shows that computer software is a helpful tool in the process of coding and analysing qualitative data (Bloomberg & Volpe, 2008, p. 75; Cohen, Manion & Morrison, 2000, p. 283; Creswell & Plano Clark, 2011, p. 208; Miles & Weitzman, 1994, p. 311). NVivo (known formerly as NUD*IST) was selected for use by this researcher due to its capacity to work with large quantities of data (Bazeley, 2007; Robson, 2002, p. 357); the ready access to software, local training and technical support; and its citation by other researchers (e.g., Bazeley, 2007; Miles & Weitzman, 1994; Creswell, 2009, p. 188: Silverman, 2006, p. 89). After reading for familiarisation, the interview transcripts were imported to NVivo for coding. The transcripts were coded multiple times by the researcher to facilitate the consideration of data through different filters of perception and interpretation, as recommended by Saldana (2009, pp. 6–7). A printout from NVivo is provided in Appendix L as a sample of the coding process during analysis (see Appendix L). Coding continued to separate, subsume, re-label, add, remove and group findings, resulting in the eventual refinement and stabilisation of five discrete categories. Categories were then checked for consistency by the researcher and reviewed by an independent researcher. The categorisation gave rise to an organisational framework through which meaning of the data could be understood to enlighten the research problem. The organisational framework will be presented later in this chapter.

Interviewees

Twenty-two candidates participated in the interviews. Fifteen were interviewed as professional Australian jazz singers and educators, while the remaining seven offered comment from their perspectives as the senior jazz educator working at tertiary
institutions in Australia with responsibilities for coordinating jazz programs, including improvisation instruction. Table 2 summarises the background of the Australian jazz singers and educators (see Table 2). Table 3 summarises the background of the senior jazz educators working at tertiary institutions in Australia (see Table 3). A professional overview of all the interviewees is included in Appendix M (see Appendix M).

Table 2. Summary of the background of interviewees who are Australian jazz singers and educators.

<table>
<thead>
<tr>
<th>Participant</th>
<th>Primary Perspective</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ingrid James</td>
<td>Jazz singer, voice teacher</td>
<td>Brisbane-based</td>
</tr>
<tr>
<td>Ashley Lewis</td>
<td>Jazz singer, trombonist</td>
<td>Gold Coast-based</td>
</tr>
<tr>
<td>Sharny Russell</td>
<td>Jazz singer, voice teacher, pianist</td>
<td>Byron Bay-based</td>
</tr>
<tr>
<td>Melissa Forbes</td>
<td>Jazz singer, voice teacher</td>
<td>Toowoomba-based</td>
</tr>
<tr>
<td>Mark Ham</td>
<td>Jazz singer, trombonist</td>
<td>Sydney-based</td>
</tr>
<tr>
<td>Jacki Cooper</td>
<td>Jazz singer, voice teacher</td>
<td>Sydney-based</td>
</tr>
<tr>
<td>Andrew Piper</td>
<td>Jazz singer, trumpeter</td>
<td>Sydney-based</td>
</tr>
<tr>
<td>Nick Begbie</td>
<td>Jazz singer</td>
<td>Sydney-based</td>
</tr>
<tr>
<td>Naomi Crellin</td>
<td>Jazz singer</td>
<td>Sydney-based</td>
</tr>
<tr>
<td>Sally Cameron</td>
<td>Jazz singer</td>
<td>Sydney-based</td>
</tr>
<tr>
<td>Kristin Berardi</td>
<td>Jazz singer, voice teacher</td>
<td>Regional New South Wales-based</td>
</tr>
<tr>
<td>Libby Hammer</td>
<td>Jazz singer, voice teacher</td>
<td>Perth-based</td>
</tr>
<tr>
<td>Irene Bartlett</td>
<td>Jazz singer, voice teacher</td>
<td>Brisbane-based</td>
</tr>
<tr>
<td>Michelle Nicole</td>
<td>Jazz singer, voice teacher</td>
<td>Melbourne-based</td>
</tr>
<tr>
<td>Dan Barnett</td>
<td>Jazz singer, trombonist</td>
<td>Sydney-based</td>
</tr>
</tbody>
</table>
Table 3. Summary of the background of interviewees who are senior jazz educators working at tertiary institutions in Australia.

<table>
<thead>
<tr>
<th>Participant</th>
<th>Primary Perspective</th>
<th>Academic Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Craig Scott</td>
<td>Senior jazz educator</td>
<td>Chair of Jazz Studies, Sydney Conservatorium of Music</td>
</tr>
<tr>
<td>Robert Burke</td>
<td>Senior jazz educator</td>
<td>Head of the School of Music and Coordinator of Jazz and Popular Studies, Monash University, Melbourne</td>
</tr>
<tr>
<td>Louise Denson</td>
<td>Senior jazz educator</td>
<td>Head of Jazz, Queensland Conservatorium, Brisbane</td>
</tr>
<tr>
<td>Bruce Hancock</td>
<td>Senior jazz educator</td>
<td>Head of Jazz Studies, Elder Conservatorium, Adelaide</td>
</tr>
<tr>
<td>Mike Price</td>
<td>Senior jazz educator</td>
<td>Head of Jazz in the School of Music, Australian National University, Canberra</td>
</tr>
<tr>
<td>Jamie Oehlers</td>
<td>Senior jazz educator</td>
<td>Co-ordinator of Jazz Studies, Western Australian Academy of Performing Arts, Perth</td>
</tr>
<tr>
<td>Dan Quigley</td>
<td>Senior jazz educator</td>
<td>Head of School, Jazz Music Institute, Brisbane</td>
</tr>
</tbody>
</table>

For the remainder of this thesis, the interviewees will be referred to by their first name only. Dan Barnett and Dan Quigley will be distinguished as Dan B and Dan Q respectively.

Presentation of the Findings

Chapters four to eight of the thesis will present the research findings. They will merge the results of the quantitative and qualitative phases of the study using a side-by-side comparison method as outlined in Creswell and Plano Clark (2011, pp. 223–226). The approach entails maneuvering chunks of contrasting data types on the same theme into proximity. This can facilitate comparison and clarity in identifying relationships. The results are interwoven with discussion which functions to merge outcomes and extrapolate meaning. In all, the chapters fill the dual purpose of reporting and discussing findings through the vehicle of integrating data.

The findings will be presented within an organisational framework which facilitates the systematic reporting of results. This framework was acquired from the thematic
analysis of interview data which found that vocalists differ from instrumentalists in five primary categories: motor feedback, verbal capability, embodiment, music learning experiences and role. Each category will be examined in a separate chapter. Quantitative and qualitative data are presented as discrete components but interspersed where possible associations between the two are evident. Consequently, patterns of congruence or divergence are discernible. Additionally, the integration produces a synergistic effect for understanding the topic, with generalisations from quantitative data providing breadth and the personalised experiences from qualitative data providing depth. Together, the data satisfies the research’s primary aim of exploring how improvising jazz vocalists differ from instrumentalists.

The five chapters of findings are presented in a uniform style. Each chapter commences with a brief definition of the category it represents, and provides a breakdown of its subcategories. Within each subcategory, it then progresses through an exploration of how vocalists differ from instrumentalists, to how singers experience the difference. The findings of each subcategory are summarised both graphically and in text at the end of each section. The final portion of the chapter extrapolates pedagogical implications, and then concludes with a summary of the chapter.

Throughout the findings chapters, two colour schemes are employed to visually assist comprehension. The first scheme assigns colours to represent the five primary categories of difference as illustrated in Figure 3 (see Figure 3).

*Figure 3.* The colour scheme in the findings chapters representing the five primary categories of difference.
This colour palette is used in several ways. First, one colour will appear in a circle in the footer of the corresponding pages. Its purpose is to assist the reader to locate chapters and move between different chapters when one references another. The colour is also used in the illustrated section summary of each chapter to reinforce visually the category to which it belongs. A lighter shade of the same colour depicts the subcategories of the primary category. An example is provided in Figure 4 (see Figure 4).

Figure 4. An example of the colour scheme used in depicting the primary categories and subcategories in the section summaries.

The category colour scheme is also employed in a summary table at the end of each chapter which illustrates where findings in the subcategories from one primary category interconnect with the findings in the subcategories of another. The colours assist to discriminate visually the categories as the example in Figure 5 demonstrates (see Figure 5).
Figure 5. An example of the colour scheme in the summary table showing where the categories interconnect.
The second colour scheme employed throughout the findings chapters is utilised in the figures reporting the quantitative data from the survey. Whenever the legend contains the word “vocalist”, the corresponding data are depicted in red in a red column, red bar or red segment of a pie chart. Conversely, whenever “instrumentalist” is listed in the legend, the corresponding data are depicted in blue. If the words “vocalist” and “instrumentalist” do not appear in the chart legend, then the colours used have no significance.

Other general guidelines observed in the presentation of data include the following: percentages are rounded to the first decimal place except in four instances where two places are necessary for accuracy; contingency tables for all chi square calculations are given in Appendix O; and survey respondents are identified by the number allocated to them during data collection (e.g., Respondent 10).

To conclude this chapter, one result from the survey is presented. This result does not answer the primary research question. Instead, it confirms the premise that first motivated this research: Jazz vocalists are perceived generally to be poorer improvisers than instrumentalists. The survey provided the opportunity to quantify the strength of the perception by asking a solitary question paralleling the direction of the research. It is the premise that accounts for the impetus of the exploration.

In this auxiliary question, jazz instrumentalists and vocalists participating in the survey (N=209) were asked, “In your experience, which musician is usually better at jazz improvisation?” A clear majority, 85.2% respondents (n=178), selected “instrumentalists”, while 0.5% (n=1) chose “vocalists”, 9.1% (n=19) indicated “neither” and the remaining 5.2% (n=11) said “don’t know”. The results, illustrated in Figure 6, confirm as the literature suggests, that there is a perceived difference between the level and/or frequency of achievement for improvising jazz vocalists and instrumentalists (see Figure 6).
Despite the conclusion that the result may invite, it is not the purpose of this thesis to argue that jazz vocalists are generally poorer improvisers than instrumentalists. Instead the thesis uses the observation of a perceived difference in outcome to motivate a search for another difference or differences between vocalists and instrumentalists that logically must exist to produce the effect.

**Chapter Summary**

*Chapter 3: Methodology* has detailed the methods the thesis used to explore how improvising jazz vocalists differ significantly from instrumentalists. It has shown that the primary research question implicated a mixed method approach to accommodate the dual meanings of the word “how”. In addition, mixed methods can produce the higher yield of data desirable for exploration, and best accommodate the complex constructs found in education research. Consequently, the two-phase, sequential mixed methods model was designed. The first phase utilised a quantitative online
survey to measure the perceived significance of the 37 variables identified previously in the literature review. Data were analysed statistically using PASW. Phase two utilised qualitative, semi-structured, guided interviews to gather data on the interviewees’ personal experiences of the variables. Thematic analysis was employed for this phase. A side-by-side comparison of data was selected to report and interpret the findings in the forthcoming chapters. The five categories of differences provide an organisational framework for arranging information as the thesis progresses through comparison of data, integration, discussion and the extrapolation of pedagogical implications. The chapter concluded with an auxiliary finding from the survey that confirmed there is a perceived difference between the level and/or frequency of achievement of Australian improvising jazz vocalists and instrumentalists. The finding substantiates the motivation to the search for how improvising jazz vocalists differ significantly from their instrumental counterparts. Chapter 4 will begin the presentation of the findings with the first category of difference, motor feedback.
Chapter 4: Findings on Motor Feedback

The first category for exploring how improvising jazz vocalists differ from instrumentalists is motor feedback. Motor feedback is the information provided by physical senses when the body performs an act. The brain uses this information to create and adjust motor programs to improve future performance. This chapter will examine the difference of motor feedback under three headings; utilising motor feedback, the role of audiation, and conceptualising pitch. Within these three divisions, the discussion will progress from how vocalists differ from instrumentalists to how the difference is experienced by singers. The chapter will conclude by extrapolating pedagogical implications of motor feedback for vocal jazz improvisation education.

Utilising Motor Feedback

The Difference in Utilising Motor Feedback

The literature review identified a perceived difference between the amount of motor feedback received by vocalists and instrumentalists during improvising (see Appendix A, Perceived Difference 17). Unlike instrumentalists, singers were noted to lack visual and tactile feedback, and their kinaesthetic feedback was seen as less categorical. The survey constructed for this study sought to explore whether the difference in vocalists’ sensory information impacted on their experiences of utilising motor feedback during improvisation.

To begin, the survey asked adult, Australian, performing jazz instrumentalists to rank which method they use most frequently to identify the name of a note they are playing
while improvising. Of the instrumentalists who responded (n=91), visual feedback was selected by 31.9% of participants (n=29), while 27.5% (n=25) chose tactile feedback, 35.1% (n=32) nominated aural feedback and 5.5% (n=5) said kinaesthetic feedback. The results show that similar numbers of instrumentalists perceive aural, visual or tactile feedback as their most favoured source of feedback when identifying a note during improvising. Kinaesthetic feedback (5.5%) received notably fewer nominations than the other three options. The results are illustrated in Figure 7 (see Figure 7).

Figure 7. The perceived, most frequent method of note identification during improvising, selected by percentages of surveyed instrumental respondents.

Vocalists could not be asked the same question because the literature review raised the possibility that singers may not identify notes at all as they do not possess “buttons” they can touch or see. Tactile and visual feedback are not options for singers. Hence a question was devised to accommodate this variation. Vocalists were asked, “Which method do you use most to help pitch notes when you are improvising?” Of those who responded (n=48), 93.75% of vocalists (n=45) selected “hearing the notes I’m singing helps me pitch the notes I want” (aural feedback).
remaining 6.25% (n=3) chose “sensing how far I’ve moved the muscles of my voice helps me pitch the notes I want” (kinaesthetic feedback). The results are illustrated in Figure 8 (see Figure 8).

*Figure 8.* The perceived, most frequent method used to help pitch notes during improvising, indicated by percentages of surveyed vocal respondents.

The response shows that aural feedback is perceived to be used more frequently than kinaesthetic feedback by vocalists to help pitch notes.

The results of these two survey questions can only provide a preliminary comparison between vocalists and instrumentalists due to the variation in the wording of the questions. It does, however, raise sufficient doubt whether vocalists would utilise motor feedback in the same manner given that vocalists place heavy emphasis on aural information. Future research is required to confirm and quantify the extent of the difference. In the meantime, the likely difference was earmarked for further exploration in the interviews.

In general, aural motor feedback was perceived to be the dominant preference of vocalists when pitching notes. This is in contrast to the perception of nearly equal
preferences for tactile, aural or visual feedback selected by instrumentalists when identifying notes. Visual and tactile sensory information were not options for singers.

Kinaesthetic feedback received the least number of preferences from both parties and requires further investigation to provide an explanation. The reduced quantity of motor feedback sources may generate a natural emphasis on auditory information in singers. As Melissa surmised in the interviews, “Obviously singers have to rely on their ear. That’s all they’ve got really.”

The Experience of the Difference in Utilising Motor Feedback

Difficulty

The difference in utilising motor feedback information produced a variety of experiences for vocalists that they described in the interviews. The reduced options were credited with generating increased difficulty in improvising. Irene, Jacki and Sharny each described the absence of visual feedback as “hard”. Robert, Irene and Nick also associated the absence of tactile feedback with challenges. In his role as Head of Jazz Studies at the Elder Conservatorium, Bruce reported some of his vocal students complain that improvisation is “hard for me”. When asked to postulate why, Bruce responded by referencing motor skills:

   The application of the harmony and the actual production of the lines is more difficult to just aurally sing obviously than when you’ve got buttons to press...It’s harder to apply to their instrument because they haven’t got those buttons. (Bruce)

Nick illustrated his perception of increased difficulty by using a sporting analogy:

   Like in diving, there are degrees of difficulty in the dives. I think there’s something to be said for having a degree of difficulty scale because
instrumentalists have something tangible to work with and vocalists have to vibrate their vocal folds at a certain rate in order to get a little pocket of air just above them vibrating at a certain rate to create the pitch they want. Let’s just say instrumentalists have equipment that’s easy to use. (Nick)

For Sharny, the perceived difficulty of vocal improvising caused by reduced motor feedback had potential to impact on practice time.

It’s very hard for vocalists to practise. Again, they’ve just got to stand there and find the music and the notes and everything else in their own body or on their own ear whereas with an instrument, there’s the note, there’s the string, there’s the button, whatever it is. [Vocalists] get a bit lost as to how to practise so they just sing their songs. (Sharny)

Ashley, Naomi and Sharny recommended that vocalists learn an instrument to overcome their difficulty with limited motor feedback. The substitution of an instrument for voice may provide the singer temporarily with the same access to motor feedback information as other musicians. Dan Q, however, pointed out the limitations of the approach as a long term solution. He said that although his students receive some assistance from piano skills, he seeks ultimately to move them away from “sitting at the piano trying to pitch the notes that they’re trying to sing”. He explained, “I don’t want them to be a piano player because they’ve enrolled as a vocalist.” His comment suggests that the playing of instruments may offer only a temporary solution to the limitations in vocal motor feedback. The difficulty may return when the student ceases playing the instrument and returns to singing.

Risk

The lack of strings or buttons was also seen by Kristin, Melissa and Irene to contribute to a sense that vocalists take a greater risk by improvising than instrumentalists do. Kristin noted that without keys, singers “risk more because it’s more haphazard.”
Melissa likewise believed that the lack of buttons made improvising “more risky in a way” because the singer does not have “buttons that you can press in a way that you know if you do them in a particular order, it will work.” The sense of increased risk due to the limited motor feedback of vocalists may compound existing anxieties arising from the perception that singers are represented personally by their voice, as Chapter 6: Findings on Embodiment (Personal Representation) will show.

Benefits and Conflicts Experienced with Kinaesthetic Feedback

The interviews generated references to vocalists receiving less categorical kinaesthetic feedback. Jacki, Ingrid and Sharny each mentioned the contribution of kinaesthetic feedback to their motor learning. Ingrid attributed her repetitive practice of scales to developing some muscle memory which assisted her accuracy in pitching. Sharny cited repetitive practice as a means to get seventh chords in “your muscle memory.” The strength of the identified connection between muscle memory of pitch and repetitive practice may be significant given the findings of Chapter 7: Findings on Music Learning Experiences (Approaches to Self-directed Music Practice). It will show that vocalists differ from other musicians in their observance of repetitive practice.

Jacki found her strong awareness of kinaesthetic feedback to be a useful tool for locating pitch. She gave this analogy:

You know how heavy your hand bag is. You know how much flex you need to have in your arm to pick up your hand bag. When it’s empty, you know when you use the same [flex] and you pick it up and it almost flies away because you’ve picked it up with too much strength. Okay, same thing in a way. You remember how to sing a C. (Jacki)

Although Jacki indicated kinaesthetic feedback provided her with a strong sense of pitch, she chose not to equate it with the categorical precision of fixed pitch: “It’s more like relative pitch and it’s more to do with the muscle memory...I know where a C is
approximately.”

Kinaesthetic feedback appeared to be useful for Jacki but she also noted its challenges. She reported being disconcerted when the key of a song she performed regularly was altered by the accompanying musicians. She surmised:

I’m using muscle memory for my pitch because I can tell a couple of times my trio have started ‘Pennies in Heaven’ in F instead of E flat and it’s thrown me. I’ve gone to start and I can feel the difference. (Jacki)

The less specific nature of kinaesthetic feedback of the larynx appeared to contradict the auditory feedback and disoriented Jacki. Mark experienced a similar sense of conflict when the perceived sensation of his larynx differed from the key he heard.

Pianos can be out of tune as well. You might think “oh no, I always sing this in Bb” and the piano’s in A, and if you’re so strong that you’ve done always in that key and you can’t change, you’re a semitone out and it’s just going to be terrible. You’re going to be going “what’s wrong with the piano player?” And the piano player’s going to be going “what’s wrong with you?” (Mark)

In all, while kinaesthetic feedback was beneficial for some singers, at other times it conflicted with aural information which confused singers.

Visualisation and Hand Movement

Discussions of the vocal experience of reduced motor feedback referenced specific new behaviours. The use of visualisation while improvising was cited by several interviewees. Melissa, Sharny, Naomi and Ingrid each described visualising a keyboard to assist their awareness of note placement, while Jacki described “seeing the music on the stave”. Andrew’s perspective as both a trumpeter and singer detailed a clear activation of visualisation when he sings:
With singing, you don’t have a physical instrument there to help you attain the notes. It’s all internal and you need to somehow visualise that. I think coming from an instrumental background it is very helpful for me to be able to visualise things that I’m singing. If we’re doing an exercise I might visualise my fingering pattern on the trumpet and then just apply that to singing. (Andrew)

Hand movement during singing was also a practice discussed by participants and examined in the survey. The survey asked respondents if they had observed vocalists moving their hands when they sing as if they are trying to place the pitch of a note precisely. Of those who responded (n=202), the majority (91.1%, n=184) indicated that they had observed the practice in themselves or others, while 8.4% (n=17) indicated they had not, and 0.5% (n=1) selected “don’t know”. The results show that vocalists are perceived frequently to use hand movement to assist pitch placement (see Figure 9).

*Figure 9. Percentage of participants who had perceived vocalists’ use of hand movement to assist pitch placement.*

Interviewees contemplated the perceived use of hand movement in pitch placement and offered their interpretation of the behaviour. Libby viewed it as singers “reflecting what’s happening inside their own body; so the movement of the larynx.” Her
explanation suggests that the hand movement mirrors passively what is taking place vocally. Likewise Irene accounted for the movement as a general “expression of...brain function”. Other interviewees interpreted the behaviour as an active and constructive contributor to improving motor performance. Ingrid described hand movement as:

...a way of being in the moment. Sometimes it’s a rhythmic thing. Sometimes it’s trying to stay in the pocket with the band if it is like a swing feel and it’s fast. Other times it can be finding intervals and helping them move around, up and down. (Ingrid)

Ingrid’s association of hand movement with pitch placement was echoed by other interviewees. Naomi reported that using her fingers to play an imaginary keyboard was helpful for singing intervals such as a tenth and a tritone. Libby recalled moving her fingers as if playing the piano to create “a physical feeling about where the pitches are.” When sight-singing, Dan B reported using slide positions on an imaginary trombone at times to increase his “chance” of singing a desired pitch. Michelle described using hand movement as a means to deliberately engage the visual feedback she lacks as a singer:

For me if I’m thinking chords...I straight away start shaping what they are on the piano. It’s like a shape. There’s lots of different sorts of memories. The visual one is really strong for me. Just actually moving your hand just sort of makes it a bit more visual, I guess, in ways. (Michelle)

The playing of imaginary instruments while singing was an experience multiple participants shared. Andrew pressed valves on an imaginary trumpet; Naomi, Libby and Michelle imitated playing piano; Kristin fingered a saxophone; and, Mark and Dan B motioned the trombone slide.

The use of hand movement while singing was well cited in the survey and in the interviews. Sharny postulated that movement is prevalent because it may assist to
make a “very abstract concept” concrete. She likened it to “training wheels on a bicycle...helping you keep your balance and keep your perspective and you know where you are.”

Section Summary: Utilising Motor Feedback

The findings of the first section of this chapter showed that the absence of visual and tactile feedback, and the less categorical nature of kinaesthetic feedback, produces some different experiences for singers when improvising, compared to those of instrumentalists. The research suggests that aural feedback is the dominant source of feedback utilised by vocalists. The absence of visual feedback was experienced as a difficulty which contributed to a perceived increase of personal risk. Kinaesthetic feedback was cited by participants as offering the benefit of assisting to locate pitch approximately, and the drawback of confusion when the kinaesthetic sensations and aural feedback appear to contradict. Vocalists reported using visualisation and hand movement to augment the limited feedback information they receive.

The findings regarding this section are summarised in Figure 10 (see Figure 10). The figure illustrates the contribution that utilising motor feedback makes in distinguishing the singer’s experience of improvising from the instrumentalist’s.
Figure 10. Summary of findings on how utilising motor feedback differentiates singers.

- Lack of visual and tactile feedback
- Less categorical kinaesthetic feedback
- Aural feedback is perceived as preferred feedback source
- Visualisation and hand movement compensate for limited feedback
- Kinaesthetic feedback offers assistance and creates confusion
- Increased sense of risk in improvising
- Reduced feedback produces difficulties
The Role of Audiation

The Difference in the Role of Audiation

The literature review showed that audiation often contributes to the jazz musician’s experience of improvising. This contribution was substantiated in the survey when jazz musicians were asked, “How often do you hear musical ideas in your head while improvising?” Of those who responded (n=182), 43.4% of musicians (n=79) indicated “constantly”, 39.6% (n=72) selected “frequently”, 8.8% (n=16) chose “half the time”, 6.6% (n=12) nominated “sometimes” and the remaining 1.6% (n=3) said “never”. The results confirm that the majority of jazz musicians perceive an experience of audiation often during improvising.

The literature review also identified the additional role audiation plays in the process of prephonatory tuning when producing vocal sound. This study sought to explore the vocalist’s experience of this additional function of audiation. The literature suggested the dependence on audiation may alter the vocalist’s preference of source for generating ideas during improvising (see Appendix A, Perceived Difference 14). The survey sought to ascertain if there is any perceived difference between vocalists and instrumentalists in the frequency they use audiated ideas in improvisation. Jazz musicians were asked, “When you improvise, where do your ideas come from?” Of those who responded to the question (n=182), “spontaneous tunes I hear in my head” was selected by 68.2% of instrumentalists (n=90) and 62% of vocalists (n=31). Chi square analysis shows there is no statistically significant difference in the responses ($\chi^2 (1) = 0.622, p = .430$) (see Appendix O for the contingency table) (see Appendix P for the results of the other options for the question).

The results show that audiation is perceived to be used for generating ideas in improvisation by vocalists and instrumentalists with comparable frequency. Chapter 7: Music Learning Experiences (Pedagogical Implications of the Difference of Music Learning Experiences) will reveal that vocalists may encounter some restraints in using
audiated ideas given the generally lesser amount that singers input into their ideas bank.

The use of audiation for prephonatory tuning was identified in the interviews as a specifically vocal application. Louise highlighted it as a primary difference between vocalists and instrumentalists. She explained vocalists “have to hear what’s happening because otherwise you can’t physically make your voice go to the right notes.” In contrast, she noted that if instrumentalists “put [their] fingers in the right place, [they] can play notes that are going to work”. She added that instrumentalists can use finger placement to select consonant notes “even if [their] ear isn’t really up to understanding why”.

Other interviewees also cited the essential role of audiation in prephonatory tuning. Dan Q reported singers have to know “what the note sounds like” or “they’re going to just be fumbling around trying to find out where that pitch is….”. Likewise, Naomi pointed out that as a vocalist, “you have to hear it to be able to sing it properly”. In discussing musical devices, Jamie observed that his vocal students needed to have “absorbed the sound” before it started “coming out naturally in their scatting.”

The Experience of the Difference in the Role of Audiation

The additional use of audiation by singers for prephonatory tuning suggested differences in its use during skill development, as observed in the literature review (see Appendix A, Perceived Difference 19). To begin, the survey investigated if there is a possible connection between the vocalist’s reliance on audiation for prephonatory tuning and how singers begin learning improvising. Survey participants were asked, “Which statement best represents how you first began improvising?” Of those who responded (vocalists, n=50; instrumentalists, n=132), 38.6% of instrumentalists (n=51) selected “I picked notes that were likely to sound good because I knew they were in the chord or scale” (the goal note approach), while 14% of vocalists (n=7) chose this option. In contrast, 80% of vocalists (n=40) selected the option “I used my ear to
play/sing notes that sounded good to me without knowing the chord or scale”, compared to 43.2% of instrumentalists (n=57) who chose this option. The option of “neither” was nominated by 18.2% of instrumentalists (n=24) and 6% of vocalists (n=3). The results are illustrated in Figure 11 (see Figure 11).

**Figure 11.** The method perceived to be used by jazz musicians when they first began improvising.

Chi square analysis of the results shows there is a very highly significant relationship between the beginner’s method of improvising and whether the respondent was an instrumentalist or vocalist ($\chi^2$ (2) = 19.758, $p < .001$) (see Appendix O for the contingency table for Figure 11). The results show beginner vocal improvisers have a higher probability of learning by ear than instrumentalists. Conversely, instrumentalists are more than twice as likely to start improvising by aiming to use goal notes.
The interviews provided corroboration of this finding and offered some explanation. Jacki said she began improvising aurally “because I didn’t know anything else. I was still learning what was in a minor scale and I’d never heard of a pentatonic before.” Irene shared the same learning pathway as Jacki and described it as, “Ear first then the notes.”

The common vocal pathway of beginning with the “ear” is caused possibly by the necessity for vocalists to audiate prior to phonation, as Louise pointed out. She drew a connection between the two in her interpretation of the different pathways:

If you study theory and you’re an instrumentalist, to some extent you can put your fingers in the right place and if you know that this arpeggio goes with this chord, even if your ear isn’t really up to understanding why, if you put your fingers in the right place you can play notes that are going to work. Whereas I think with vocalists you have to hear what’s happening because otherwise you can’t physically make your voice go to the right notes. In that way I think that there probably has to be a more advanced level of aural development and acuity before a vocalist can really successfully improvise. (Louise)

Louise’s explanation suggests there may be a difference in the sequence of applying goal note strategies when developing skills. As it is necessary for vocalists to audiate notes for prephonatory tuning, their sequence includes this step (see Figure 12).
As Louise described, the instrumental model may omit the step of audiation when applying the goal note approach. Louise postulated that the instrumentalist’s omission of the audiation step has little impact on the accurate production of sound. The notes are, in her words, still “going to work” (see Figure 13).
Melissa and Naomi both supported Louise’s observation that instrumentalists may bypass audiation when improvising. Naomi described instrumentalists’ capacity to “put their fingers down in the right place and it will come out sounding right”. Melissa saw this option as an advantage instrumentalists have over vocalists:

Say, if you’re a piano player, you do have buttons that you can press in a way that you know if you do them in a particular order it will work, whereas you don’t have that as a singer...There’s no kind of fallback position, is there? There’s no safe harbour where you can go “oh I’ll just kind of run my fingers over a blues scale or something because I can’t hear anything at the moment.” Whereas if a singer can’t hear it, it either sounds really bad or they’ve got nothing. (Melissa)

Melissa noted that vocalists’ need to audiate could impact negatively on their achievement. Jamie also observed it can create a difference in outcome. He shared an
anecdote of presenting a jazz motif to his joint class of singers and instrumentalists. The instrumentalists were asked to play the device and improvise. They did this successfully. However if the players were then asked to change to singing, the ability to perform the motif vanished:

The challenge I put forward for all the instrumentalists if they ever have a problem—because there’s always that divide between vocalists and instrumentalists—I ask the instrumentalists to sing the topic and they haven’t got a hope in hell of doing it. (Jamie)

**Difficulty with Goal Note Strategies**

Jamie’s illustration shows that prephonatory tuning creates a difficulty for singers for applying goal note strategies in improvisation. Other participants noted the impact as well. Mike described a “physical difference” and increased difficulty for vocalists who decide, like instrumentalists, “to play sharp nine on an A7 chord”. Jacki’s experience at university demonstrated her struggle with being given such directives:

The difficulty was that the teacher could say to an instrumentalist “I want you to solo only using the pentatonic scale” and I would have to go home, and I think most singers would be the same, go home and learn the pentatonic scale over every single chord and maybe even write it out so that you actually got that scale into your head. Eventually it becomes second nature but I still can’t tell you what scales I’m singing. (Jacki)

For Dan B, the difficulty of working with goal notes as a singer was evident during sight reading when he switched from playing trombone to singing.

I guess when I’m looking down at a set of changes that’s when I would tend to be thinking about notes more, but not as a singer... I’d actually find that probably a little bit harder as a singer...[I]f I didn’t have anything to back me up,
Dan B’s illustration identified a contrast between the experience of vocalists and instrumentalists. When faced with unfamiliar music on trombone Dan B could select goal notes to outline the changes. It was considered “harder” however to accomplish it as a singer.

*Improvising by Ear*

While vocalists may experience difficulty with the goal note approach, instrumentalists appear to experience their own challenges when improvising by ear. Several interviewees experienced this contrast personally as they moved between singing and their instrument. Melissa observed, “Whenever I go to improvise at the piano I can hear what I want to play but I can’t necessarily translate it directly, instantaneously.” Melissa’s need to “translate” her audiated ideas to piano highlights a difference in difficulty between vocalists and instrumentalists. The instrumentalists’ challenge of translating sounds to instruments is not experienced by singers. As Sharny noted, singers may find scatting “easier” because they “don’t have to find the notes on an instrument.” This perception of ease will be discussed further in *Chapter 6: Embodiment (The Organic Instrument)*.

Mark noted the ease at which singer Kurt Elling can “transfer” whatever “he is hearing in his mind” to his voice. He observed a contrast with instrumentalists:

> If you’re improvising on an instrument and you can’t relate what you’re hearing in your mind onto your instrument ’cause you don’t have the technique, well then you’re going to get muddled up. (Mark)

Ashley shared Mark’s opinion that technical expertise on an instrument affects the instrumentalist’s ability to convert audiated ideas to an instrument. He based this
conclusion on his personal experience of playing trombone and trumpet:

When I started improvising [on trombone] it was impossible not to be [conscious of the name of the note being played] because I was still getting the technical side of my instrument down and so I had to know which position I was going to...I play a lot less trumpet and when I pick up the trumpet I’m constantly compromising what’s in my head to how fast my fingers can move and where I’m going. On the trombone anything that I have in my head comes out the horn. (Ashley)

Ashley’s experience shows a developmental change where he was conscious of note names as a beginner trombonist and trumpet player. As his technique developed on trombone that difficulty was overcome. Ashley later equated the ease at which his audiated ideas became realised on trombone as “like scatting.” He described progressing on trombone from thinking consciously of note names to, “anything that I have in my head comes out the horn...I don’t think anything.” Here, to Ashley, scatting represented the pinnacle of development and ease due to the absence of conscious conversion of sound to absolute pitch, which he eventually achieved subconsciously on trombone.

Ashley’s experiences as a vocalist, expert trombone player and less experienced trumpet player gave him a means for comparison of the processes of progressing audiated ideas to performance. Again, the application sequence differs between instrumentalists and vocalists (see Figure 14 and Figure 15). This time the instrumentalists have an additional step which vocalists bypass. Instrumentalists require a conversion process of sounds into note names, until sufficient technical proficiency on the instrument is achieved that conversion occurs subconsciously. The potential for instrumentalists to move the conversion process from conscious to subconsciousness was considered desirable by Ashley. It represented a more advanced stage of development.
*Figure 14.* The sequence vocalists may use to apply audiated notes.

1. **Vocalist audiates the note**
2. Audiation and muscle memory combine for prephonatory tuning to position the vocal chords to generate the audiated note
3. **Vocalist phonates the note**

*Figure 15.* The sequence instrumentalists may use to apply audiated notes.

1. **Instrumentalist audiates the note**
2. **Instrumentalist converts the note into absolute pitch** (consciously for beginners, subconsciously for advanced players)
3. **Fingers/arms are placed in a position on the instrument known to generate the absolute pitch**
4. **Instrumentalist plays the note**
Pathways for Learning Improvisation

Two approaches to learning improvising are evident in the experiences of jazz musicians. The first is the experience Louise described of conceptualising ideas as goal notes in absolute pitch, then performing them (see Figure 12 and Figure 13). This produces some difficulty for vocalists who must audiate goal notes before singing them. The second pathway is audiating ideas then performing them (see Figure 14 and Figure 15). For beginner instrumentalists this introduces greater difficulty with the need to convert ideas to absolute pitch in order to play the correct pitches. Vocalists experience ease in this method, and progress unhindered from audiation to performance.

Arising here is a stark contrast between the vocalist’s and instrumentalist’s experience of learning to improvise. The survey results combined with interview findings suggest there is a natural tendency for vocalists to favour learning by ear because of its comparative ease. In contrast instrumentalists may favour the goal note approach because of their need to think in absolute pitch to press the correct “buttons”.

Melissa’s effort to learn improvising on piano summed up the contrast between the two methods of approach:

Whenever I go to improvise at the piano I can hear what I want to play but I can’t necessarily translate it directly, instantaneously...Whereas I think what [my piano teacher is] trying to suggest is that you think of what you would play and then sing it. So that’s kind of the complete opposite of what I would normally be doing [as a singer]. (Melissa)

The contrasting pedagogical focuses of goal notes or audiation was observed by several interviewees as a distinction between vocal and instrumental teachers. Kristin described instrumental improvisation at university as “these are the modes you use
over these chords”, whereas for vocalists it was “sort of like ‘oh well, just use your ear.” Melissa also witnessed a contrast in teaching approaches.

I can’t imagine a saxophone player ever being told in their lesson “you just go with the flow. Just play whatever comes out. Whatever you hear is fine.” That would never happen whereas I think that happens a bit with singers. (Melissa)

Naomi noted contrasting emphases in two of her teachers. She described her first vocal improvisation teacher, who was also a jazz pianist, as being “quite instrumentally minded”. This teacher approached improvising with “arpeggios and scales”. In contrast, Naomi described her second teacher, who was not an instrumentalist, as “singer-based”. This teacher’s approach was “just listening and creating”. Naomi’s language indicates a distinction in her thinking between the goal note and audiation approaches as the former being “instrumentally minded” and the latter being “singer-based”. It reveals her perceived association of pedagogical method with the type of musician. Further discussion of this different emphasis is found in Chapter 7: Findings on Music Learning Experiences (Familiarity with Referents and Procedures). It demonstrates a connection between the role of audiation for vocalists and their music learning experiences.

Section Summary: The Role of Audiation

The findings of the second section of this chapter showed that the role of audiation differs for vocal jazz improvisers compared to that of instrumentalists. The additional function it plays in the prephonatory tuning process increases its importance to singers. The research revealed that beginner vocal improvisers are more likely to use audiated ideas than goal-note approaches. Goal-note approaches were found generally to be difficult due to the limitations of motor feedback in locating absolute pitches and the need to audiate notes prior to their accurate performance. This process placed singers on a different learning pathway from their instrumental counterparts who could bypass the need for audiation while learning, and use visual
feedback to ensure the accurate performance of identified pitches.

The findings regarding this section are summarised in Figure 16 (see Figure 16). The figure illustrates the contribution the role of audiation makes to distinguishing the singer’s experience of improvising from the instrumentalist’s.
Figure 16. Summary of findings on how the role of audiation differentiates singers.

Audiation is utilised in prephonatory tuning

Difficulty with goal-note strategies

Learning pathway preference is ear-based

Beginners favour improvising by ear

How the role of audiation differentiates singers

MOTOR FEEDBACK
Conceptualising Pitch

The Difference in Conceptualising Pitch

The third difference found in motor feedback arises in conceptualising pitch. Pitch, as defined by Levitin (2006, p. 22), is a psychological construct where a mental representation of the fundamental frequency of a sound is created. This arbitrary allocation of nomenclature for frequencies provides a simplified approach for conceptualisation. The nomenclature falls into two categories; absolute pitch (e.g., frequencies in hertz; designated note names such as A, B, C); or relative pitch (e.g., solfa; scale degree numbers; superlatives such as higher and lower). Musicians may or may not think consciously of pitch while performing.

The findings of the literature review identified a perceived difference between vocalists’ and instrumentalists’ awareness of pitch orientation while improvising (see Appendix A, Perceived Difference 18). The survey sought to compare their perceived awareness of absolute pitch by asking the musicians, “How often do you know the name of the note you’re on while improvising?” Of those who responded (instrumentalists, n=132; vocalists, n=50), 49.2% of instrumentalists (n=65) selected “constantly”, compared to 2% of vocalists (n=1) who chose the same. “Frequently” was nominated by 28% of instrumentalists (n=37) and 14% of vocalists (n=7). “Half the time” was chosen by 4.6% of instrumentalists (n=6) and 8% of vocalists (n=4). “Sometimes” was selected by 12.9% of instrumentalists (n=17) and 42% of vocalists (n=21). “Never” was chosen by 5.3% of instrumentalists (n=7) and 34% of vocalists (n=17). The results are illustrated in Figure 17 (see Figure 17).
Chi square analysis of the data using likelihood ratio revealed there is a very highly significant relationship between the perceived awareness of the absolute pitch of a note while improvising and whether the respondent was an instrumentalist or vocalist ($\chi^2 (4) = 70.382, p < .001$) (see Appendix O for the contingency table for Figure 17). The results show a marked difference in the musicians’ perceived behaviour. Vocalists perceived they have less awareness of absolute pitch while improvising compared to instrumentalists. Only 5.3% of instrumentalists (n=7) reported no perceived awareness of the absolute pitch of a note they are performing while improvising, compared to 34% of vocalists (n=17).
Furthermore, instrumentalists were asked in another question, “While you are improvising, do you ever identify the name of a note you are playing?” Of those instrumentalists who responded (n=133), 73.7% (n=98) said “yes”, while 26.3% (n=35) selected “no”. The results support the observation that instrumentalists perceived they have an awareness of pitch while improvising.

The Experience of the Difference in Conceptualising Pitch

The perceived lesser frequency that vocalists think in absolute pitch may produce different experiences for singers. The interviews explored the options of thinking in absolute pitch, thinking in relative pitch or not consciously conceptualising pitch at all.

Conceptualising in Absolute Pitch

The survey results shown at Figure 17 demonstrate a perceived difference of awareness of absolute pitch between instrumentalists and vocalists. Like the vocalist’s need to audiate prior to phonation, one interviewee suggested there is a “need” for instrumentalists to think in absolute pitch in order to press the correct buttons. Dan Q illustrated that an instrumentalist working on a Charlie Parker lick “needs to know” note names and scale degree numbers in order to “reproduce that in another key”. The reproduction of exercises in every key, (i.e., the 12 key approach) is a common instrumental practice strategy with uncertain relevance to vocalists, and will be discussed in Chapter 7: Music Learning Experiences (Approaches to Self-directed Music Practice).

In parallel with the survey, the interviewees concurred that thinking in absolute pitch is not a practice necessarily adopted by singers. Melissa reported most of the time she is unaware of the absolute pitch she is vocally improvising. Likewise Jacki revealed that she does not know the pitch of the notes she is improvising and suspects that, “very few singers would.”
Nick described how thinking in absolute pitch is an option for singers that may be affected by circumstance. He reported he thinks in note names when learning new repertoire. However, once the song is mastered, he changes to thinking in relative pitch or not conceptualising pitch at all. Naomi’s option to think in absolute pitch while improvising is also affected by circumstance. She gave this example:

If I don’t know [the song] that well, I’m usually going more instinctively, because I’m not thinking “the next chord coming up is G minor”. My ear is just searching for the sound of the tonality. But if it’s something I know, for example if it’s “I Got Rhythm”, I know that it’s I-vi-ii-V-iii-vi-ii-V and I’m seeing arpeggios through it in my mind’s eye. (Naomi)

Another circumstance where vocalists may favour conceptualising in absolute pitch is if they have perfect pitch. Perfect pitch provides singers with an instinctual, internal knowledge of the note name. Naomi recalled her experiences at university where it was beneficial to use her perfect pitch ability:

We were expected to just pick up on something that an instrumentalist could read and put their fingers down in the right place and it will come out sounding right, but with the vocalist, because you have to hear to be able to sing it properly, if it was a complicated pattern, it would take a while. Luckily because of my perfect pitch and my sight reading ability I could usually get it, and so I was not that different from the instrumentalists... (Naomi)

Naomi’s words “not that different from the instrumentalists” demonstrates her perception that thinking in absolute pitch aligned her more readily with the instrumentalists’ approach to thinking than the vocalists’.

Kristin credited perfect pitch with her own tendency to think in absolute pitch while improvising. Like Naomi, she conceded this ability is not the norm for vocalists:
For me, I’m lucky in that for most of the time I am thinking about notes but I try to encourage my students to do those thirds and sevenths and hear the changes through, so that...at least, if they don’t know what note they’re singing, they know what degree of the chord or what degree of the scale they’re singing... (Kristin)

To Kristin, being able to think in absolute pitch is “lucky” and therefore not the common experience of singers. Thus she encourages her vocal students to think in relative pitch.

*Conceptualising in Relative Pitch*

The second approach to conceptualising pitch discussed in the interviews is relative pitch. Relative pitch is a system of representing frequencies mentally by describing the distance between notes in relation to a given point, rather than a fixed frequency. The survey showed that vocalists use a variety of systems of relative pitch, such as scale degree numbers, intervals and solfa (see Figure 18). In the interviews, participants reported another system of working in relative pitch. Both Libby and Bruce observed the practice of vocalists using absolute pitch names (e.g., A, B, C) in a relative pitch manner. Bruce described it as being able to sing in any key but “be thinking just functionally of one key.” He provided the example of “thinking of C major and singing in fact in A flat.”

To explore singers’ experience of pitch, vocalists in the survey were asked to identify methods they use to orientate aurally in either absolute pitch or relative pitch. Vocalists were asked, “How do you find your starting note when you’re going to sing a familiar jazz song with accompaniment?” Respondents were asked to select all options that they use, and facility was made for respondents to specify more options under the heading of “other”. Of the vocalists who responded (n=64), 70.3% of respondents (n=45) find their starting note by picking the note from the chord an instrument plays;
26.6% (n=17) find their note from an instrumentalist who plays the note for them; 23.4% (n=15) calculate their starting pitch from an opening note or chord using solfa, scale degrees, intervals or other methods; 23.4% (n=15) are not sure how they find their starting note; 12.5% (n=8) cited reading music and calculating the distance from a known pitch an instrument plays; 9.4% (n=6) use perfect pitch; and 10.9% (n=7) specified they use methods other than those listed. The results are illustrated at Figure 18 (see Figure 18).

Figure 18. Vocalists’ perceived methods of finding a starting note for singing a familiar jazz song with accompaniment.

In this result, listening to a chord and picking the note from the chord is clearly a prominent approach (70.3%) used by vocalists to find their starting note. This reliance on chords does not reveal whether vocalists need to conceptualise chords in absolute or relative pitch in order to acquire a note successfully. Further research in this regard may be beneficial to understanding.
Another practice flagged in the interviews was the use of guide tones to offer regular points of reference for tonal orientation. Guide tones are notes within chords identified in relative pitch. Libby, Michelle, Mike and Craig all nominated it as a method they use or teach to vocal students. Irene deemed guide tones helpful for vocal improvising because it gives students a “home base”. Melissa’s reference to “root notes” (a guide tone) also credits it as one of the fundamental methods for assisting vocalists:

One of the first things you need to be able to do is to be able to hear where the song is going and to hear the chord changes. So be able to sing through the root notes, be able to sing through a particular pattern… (Melissa)

Not Conceptualising Pitch

In Nick’s discussions of absolute and relative pitch, he raised the option that singers may not think in pitch at all. Likewise, Jacki doubted whether thinking in pitch is helpful to improvising vocalists. She argued that the cognitive focus required for the singer to calculate a note position in absolute or relative pitch could be counterproductive to musical goals:

If you’re in the middle of a solo and you know you’re singing a sharp 5 and you’re singing a C or an E flat, then maybe you’re not in the moment. Maybe you’re being too analytical and you should just listen…For me to also be thinking “I’m going to be clever and go for a sharp 9”…The minute I start doing that is the minute I sing very wrong notes and it all falls apart. (Jacki)

Like Jacki, Naomi at times finds thinking in pitch undermines her musical creativity. She described the difficulty of thinking in absolute pitch while improvising if The Idea of North stray from the key in which she learnt the song:
If it’s meant to be in ‘F’ and we’ve gone sharp, I have to switch off my perfect pitch otherwise I’m transposing every chord that comes along and that’s the opposite of creativity. (Naomi)

Naomi also described in the interview that her perfect pitch could “get in the way” and “be confusing when you’re trying to be creative”. She encapsulated the conflict in thinking this way: “The analytical loves to munch on facts, whereas I feel like the creative needs to draw from a source other than what ‘is’, such as what ‘can be’”. Sally also found in her personal experience that singing by ear, rather than being conscious of pitch, produced a musical outcome which she described as “generally...better” because “it’s more expressive than mathematical.”

The survey found evidence that vocalists may choose not to be conscious of pitch. When vocalists (N=64) were asked to identify all the methods they use to identify the name of the note they are singing, 29.7% (n=19) selected “I don’t identify it because I don’t need to” (see Appendix N). While this result does not show why vocalists consider they do not need awareness of pitch, it does reveal there are occasions when a notable portion of singers are not conceptualising pitch. Not conceptualising pitch may disadvantage singers as they may become inadvertently less knowledgeable of the traditional key of jazz standards. This information is relevant to participants in jam sessions, and will be examined in Chapter 7: Music Learning Experiences (Opportunities to Develop Improvising Skills).

Time to Calculate Pitch

Conceptualising pitch was connected in discussions to the time it takes vocalists to calculate it consciously. Libby compared the impact of the process with the instrumentalist’s experience:

Singers just take too long to pitch things. They can’t go to a note as quickly as an instrumentalist can who can just push the buttons. For a singer to complete
an exercise that is set for them in improv[isation] just takes them so much longer than an instrumentalist who can just sight read it, who can look at the notes while they’re playing it. (Libby)

The extended time required by singers that Libby perceived affects her choice of pedagogical approach in the classroom. She explained that if a student has “got a very short time, I might just try and teach them a guide tone line aurally” as opposed to providing theoretical explanations. Educator Dan Q concurred with Libby that calculating pitch is “a bit of longer process” for vocalists than for instruments although he added it does quicken with practice. Mike also reported an awareness of the time it takes for singers to calculate absolute pitch:

On the guitar, I know when I hit an A natural on the Em7 that it’s going to sound like a natural 11. As a vocalist, I wouldn’t be aware of anyone who could really do that with absolute clarity. I guess given enough time, you know, a couple of seconds, a lot of vocalists could... (Mike)

Not only does making calculations of pitch appear to take time for singers but one interviewee highlighted the time it takes to teach students how to make calculations. In his combined improvisation class of instrumentalists and vocalists, Dan Q reported he may spend 45 minutes of a 2 hour lesson addressing vocalists at the beginning of a semester. He concentrates on teaching them how to learn a chart and move around independently by conceptualising in pitch. This different need of vocalists for time to calculate pitch adds to the pedagogical difficulties of combining instrumental and vocal classes, as Chapter 7: Findings on Music Learning Experiences (Familiarity with Referents and Procedures) will elaborate.

An Aural Reference Point

When exploring how they think in pitch, Dan Q pointed out that vocalists not only need the knowledge of a pitch system, but also an identified aural point from which to
anchor the system. The point allows singers to connect what they know with the sound they hear. Dan Q explained; “Not everyone’s got perfect pitch so if we said ‘just sing me an A flat now,’ [vocalists] generally need a reference point.” He provided this demonstration of what vocalists may be thinking as they connect knowledge to sound through a reference point: “Okay, he’s playing an F7 chord, so the sharp 9 is going to be the A flat. Great. Let me hear the chord and then pitch note.” Here, Dan Q shows how the calculation of pitch relied on “let me hear the chord” to provide the necessary aural reference point prior to pitching.

In the absence of perfect pitch, instruments provide the reference points for vocalists by playing a specified note or chord known to the singer (see Figure 18). The survey showed that vocalists use this aural reference point in a variety ways to orientate themselves in their absolute or relative pitch system of choice (see Figure 18). For example, in the interviews, Sharny and Michelle reported using their knowledge of the key to generate their reference point from hearing the accompaniment. Sharny indicated that, “once I know what key we’re in, I know exactly what everything is in relation to that.” Michelle gave this example of how she makes the connection:

> With most of my songs, if I know a song, I generally know what key I do it in. I’ve tried to. I’m always trying to go “oh right. Blah, blah, blah song. Yeah, I do that in D flat.”...Therefore I’m more aware of what the notes are, so I’m singing D flat and I know then that I want to aim for an F. (Michelle)

With knowledge of the key in which the accompaniment is sounding, both Michelle and Sharny obtained the necessary reference point to anchor sound to concepts of pitch.

**Off-Pitch Singing**

Another experience interviewees observed regarding vocalists and pitch is off-pitch singing. Off-pitch or out of tune singing describes frequencies which fall outside
parameters associated by convention with a designated note or scale. For instrumentalists the challenge of remaining within acceptable parameters can be assisted by buttons which create an artificial subdivision of the frequency ranges. Jamie’s description of an exercise he gives to his third year improvisation students demonstrates how the use of buttons aids pitch for instrumentalists:

…If I’m getting them to play a minor 6 pentatonic off the flat 2 on a dominant chord, then a saxophone player can press a button and produce a tone that’s pretty close to the note that’s intended, whereas obviously vocalists don’t have the ability to hit and miss like that...(Jamie)

The reduced motor feedback of vocalists makes it challenging not only for singers to locate goal notes, but without “buttons” it may be harder to pinpoint a tone “that’s pretty close” or within acceptable, conventional boundaries. The “slide whistle” mechanism of the vocal instrument, as described by Berkman (2009, p. 1) does not appear to provide the same level of kinaesthetic feedback which facilitates the categorical subdivision of sound into pitches. When coupled with the invisibility of the vocal cords, fine tuning is a challenge for singers. Mark referred aptly to being off-pitch as “sliding in between and getting the cracks”.

Bruce perceived the issue of out of tune singing in improvisation as a problem that is quite distinct from general intonation difficulties. He noted that vocalists may “often sing heads and melodies very, very well” yet seem to have difficulty tuning when improvising. Singers may “appear to be really poorly pitched singers and they’re not necessarily.” He explained how he sees this phenomenon manifest:

As soon as [vocalists] start to improvise, even though their pitch might be generally quite good, they are searching for notes and they are halfway getting them and it kind of turns out to be like an intonation problem or a pitch problem, even for students with good pitch otherwise. It’s not that they can’t sing in tune...It’s kind of like a slightly different thing to ordinary intonation
problems as soon as improvisation is involved because it’s not being sure of the line in improvisation. (Bruce)

Bruce considered possible explanations for what he later called “bad” pitching and postulated the cause to be audiation skills that are still in development:

It’s not that they can’t sing in tune. It’s that they’re not hearing sufficiently yet. They’re not hearing the line clearly enough to be able to sing it in tune...The reason that it’s bad is because they’re trying to do things that are beyond their recognition and their ability for the moment, because they’ve got so many things in their head but it doesn’t yet translate to the voice. (Bruce)

Dan Q identified with Bruce’s experience and reported he too encounters singers with this problem frequently. Like Bruce, Dan Q also used the word “searching” for pitch, implying that the singer has a lack of knowledge or certainty of where a pitch is located on the sliding scale. His remedy was to work at familiarising singers with “[the] sounds they are searching for”.

**Section Summary: Conceptualising Pitch**

The findings of the third section of this chapter showed that conceptualising pitch produces some different experiences for singers compared to those of instrumentalists. Research reported that vocalists have less awareness generally of absolute pitch while improvising with the exception of singers who have perfect pitch. Some vocalists described using relative pitch for orientation in certain functions such as finding the starting note of a familiar jazz song. Another group of participants revealed they do not conceptualise in pitch at all while improvising. They experienced it as being unnecessary and counterproductive to creative thinking in music. Those singers without perfect pitch who sought to conceptualise pitch recounted a process of making calculations to locate a pitch. The calculations required time and an aural reference point from which to begin. Off-pitch singing was also identified as a
byproduct of vocal improvisation. It referred to singers’ difficulty in remaining within
the acceptable parameters of intended notes due to the variable pitch mechanism of
the vocal cords, their lack of visual feedback and their less categorical kinaesthetic
feedback. Beginner vocalists who lack the ability to audiate jazz motifs may stray from
the accepted bounds of tonality.

The findings regarding this section are summarised in Figure 19 (see Figure 19). The
figure illustrates the contribution conceptualising pitch makes to distinguishing the
singer’s experience of improvising from the instrumentalist’s.
Figure 19. Summary of findings on how conceptualising pitch differentiates singers.

Singers with perfect pitch are more aware of absolute pitch while improvising.

Relative pitch strategies may assist orientation and finding starting note.

Some vocalists don’t conceptualise pitch while improvising.

Some vocalists find conceptualising pitch counterproductive to creativity.

Off-pitch singing observed in vocal improvising.

Less awareness of absolute pitch while improvising.

Aural reference point needed for conceptualising pitch.

Time for calculation needed when conceptualising pitch.

Chapter 4: Findings on Motor Feedback
Pedagogical Implications of the Difference of Motor Feedback

The findings on motor feedback presented in Chapter 4 demonstrate vocalists have differing experiences from those of instrumentalists. These differences generate implications for jazz vocal improvisation education. To begin, the variation in the quantity and quality of motor feedback produces variations in its utilisation. The necessary prioritising of auditory feedback for vocalists over other sensory sources suggests a natural aural emphasis in learning. Jazz voice education may benefit from increasing the focus on aural training for singers in order to maximize their interpretation of the comparatively limited feedback they receive.

Vocalists in the study also reported engaging in behaviours which may compensate for their limited feedback. Learning to play an instrument was recommended as a means to provide the missing tactile and visual feedback, and to offer more precise kinaesthetic information. The approach may be a temporary compensation rather than a permanent solution. Further research is needed to substantiate whether there are long term effects that are transferrable to singing. Visualisation and hand movement were described as providing artificial mental support and reinforcement of auditory information for singers. Further research is suggested to test whether encouraging these behaviours produces some positive outcomes for vocal improvisation students.

Audiation was highlighted in the second section of the chapter as playing a crucial role in the vocalist’s improvisation experience. Vocalists’ need to audiate intended notes prior to phonation appears to be the probable cause of singers preferring the aural pathway to learning over music theory approaches. As Louise suggested, it seems likely a specific investment of time in aural development would not only be beneficial to singers but is essential as the basic requirement for accurate prephonatory tuning of musical devices. Educational support could provide the necessary subconscious, aural bedrock required for successfully audiating and subsequently performing goal notes. Further investigation into precisely how audiation skills are acquired and developed would be a complementary study with application pertinent to vocal jazz education.
The third focus of the chapter centred on the difference in conceptualising pitch while improvising. The research suggests the perception that vocalists generally have less awareness of absolute or relative pitch while improvising compared to that of instrumentalists. This finding is pertinent particularly in light of the prevalence of chord-scale methods in tertiary jazz education (Murphy, 2009, p. 174; Kenny & Gellrich, 2002, p. 126). For as long as students are expected to conceptualise and apply these methods in absolute pitch, vocalists without perfect pitch will face unique obstacles. It raises the question of whether conceptualising pitch is an effective approach to educating improvising singers. Further investigation is warranted. The reduced awareness appears to be caused by their reduced sensory feedback and because conceptualising pitch is not a necessary step when using audiated ideas. Therefore pedagogical approaches operating consciously with pitch names may function more effectively when they provide singers with an aural reference point, a system to calculate pitch (such as solfa) and time for students to make the calculations. Particular attention may also be given to assisting vocalists in finding their starting note. The survey found that this was acquired most frequently by picking a note from a chord which an instrument plays.

**Chapter Summary**

Chapter 4 has explored motor feedback as the first of five primary categories of how improvising jazz vocalists differ significantly from instrumentalists. The side-by-side analysis and discussion of quantitative and qualitative data obtained from the survey and interviews revealed three areas of differentiation in motor feedback; the utilisation of motor feedback, the role of audiation, and conceptualising pitch. This is summarised in Figure 20 (see Figure 20). The chapter concluded with a discussion of the implications of these findings for jazz vocal improvisation education and recommendations for further research.
Figure 20. Summary of Chapter 4: Findings on Motor Feedback.

How improvising jazz vocalists differ from instrumentalists

Motor Feedback
* Utilising motor feedback
* The role of audiation
* Conceptualising pitch

Role

Verbal Capability

Embodiment

Music Learning Experiences
This chapter also pre-empted areas of overlap in the thesis between the experiences of motor feedback and the forthcoming discussions of other categories of significant difference. Table 4 provides a visual summary of the intersections (see Table 4).

**Table 4.** Intersection of motor feedback with other subcategories of difference.

<table>
<thead>
<tr>
<th>Motor Feedback</th>
<th>Embodiment</th>
<th>Music Learning Experiences</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>The organic instrument</td>
<td>Familiarity with referents and procedures</td>
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<tr>
<td></td>
<td>Personal representation</td>
<td>Approaches to self-directed music practice</td>
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<tr>
<td>Utilising motor feedback</td>
<td></td>
<td>Opportunities to develop improvising skills</td>
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<td>The role of audiation</td>
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<tr>
<td>Conceptualising pitch</td>
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= Findings show a relationship between categories

Together, Figure 20 and Table 4 demonstrate how motor feedback contributes to distinguishing improvising vocalists as significantly different from instrumentalists.
Chapter 5: Findings on Verbal Capability

The second category for exploring how improvising jazz vocalists differ from instrumentalists is verbal capability. One of the ways in which the human vocal apparatus is distinguished from instruments is by its ability to produce speech. This unique feature is used to communicate lyrics in a traditional jazz performance. However, when improvisation occurs (as defined in Chapter 2), the singer relinquishes lyrics and uses the apparatus to produce scat syllables.

This chapter will examine how the vocalist’s verbal capability introduces variables to improvising which the instrumentalist does not experience. The variables are explored in two subcategories; relinquishing lyrics and implementing scat syllables. Within these subcategories, the discussion will progress from how vocalists differ from instrumentalists to how the difference is experienced by vocalists. The chapter will conclude by extrapolating pedagogical implications of verbal capability for vocal jazz improvisation education.

Relinquishing Lyrics

The Difference of Relinquishing Lyrics

The verbal capability of the vocal apparatus is an acknowledged, defining attribute of singers (e.g., Burwell, 2006, p. 332; Enstice & Stockhouse, 2004, p. 207; Pellegrinelli, 2005, p. 57; Wadsworth-Walker, 2005, p. 121). It was also acknowledged by participants in the interviews conducted for this study. Nick described vocalists’ ability to sing lyrics as an “extra tool” that “instrumentalists just miss out on”. Melissa reported a change in her focus as a singer when she realised words were “the thing
that we have that nobody else has”. Similarly, Dan Q recalled his revelation that interpreting lyrics was “the beautiful thing that a singer can do” that “an instrumentalist cannot”.

Superficially, the ability to perform lyrics may appear irrelevant to this thesis given the exploration of vocal improvising is limited intentionally to scat singing. The research shows, however, that there is a lasting impact of the capability of singing lyrics that affects experiences of improvising for singers but not instrumentalists. Findings from the survey and interviews will explore the quality of these differing experiences.

The Experience of the Difference of Relinquishing Lyrics

Loss

Lyrics were regarded by several interviewees as an important consideration in vocal performance (e.g., Ingrid, Sharny, Melissa, Nick, Naomi, Kristin, Irene, Sally, Michelle and Libby). Both Sharny and Irene regarded them as a central focus of creative decisions. Sharny called it a “handle” which directed her musical choices, while Irene labelled it the “security blanket” of singers. The sudden removal of lyrics for improvisation appeared to generate feelings of loss. Irene pondered the singer’s reaction to their removal:

I think singers can move melody lines around more easily if they are attached emotionally to the lyric, the story. However, when it comes to scatting, I think that that’s a different kettle of fish because once you take the words away it becomes much more difficult for a singer. They get a bit afraid of it, because it’s a bit like the security blanket is gone. (Irene)

Irene associated taking away words with an increase in anxiety and difficulty for vocal improvisers. For Sally, the loss of lyrics threatened the singer’s ability to affect an
audience emotionally. This notion rests on Sally’s and Mark’s common belief that lyrics provide an easier route to “moving” people. Mark explained:

   It’s very rare as an instrumentalist you’d be able to really move someone with just your playing. I know it does happen. It happens in classical music and everything but if you can sing a song with some amazing lyrics, even if you sing it badly, those lyrics can connect with someone. (Mark)

Sally shared Mark’s perspective and noted a consequence of relinquishing of lyrics is a loss of the ease of being able to “move” people:

   I admire a saxophonist or instrumentalist that can move people because they don’t have that tool, that immediate tool that we have of bringing to people. A really quick example of how important that is, is when we sing in other countries that don’t speak English. Whenever we’re singing in a different language you’re losing that. The words don’t mean anything. (Sally)

Several interviewees noted the removal of lyrics also generated a threat to the singer’s role of storyteller. Singers Naomi and Irene both referred to a desire to continue the story established in the lyrics when they switched to scat syllables. Irene identified a mark of the best jazz singers is that they “don’t stop telling the story” when they progress from lyrics to scat syllables. She saw improvisation as being “imbedded within the lyric”. Consequently, “When the words stop, the story shouldn’t”. This observation reveals indirectly an awareness that the singer’s perceived role as storyteller may be affected when lyrics cease.

The function of storytelling is considered so important to some singers that it may affect their decision whether to improvise. Melissa observed some vocalists choose not to scat because they are “more interested in telling the story” through lyrics. This connection between verbal capability and the singer’s perception of the role of
improviser will be explored further Chapter 8: Findings on Role (Less Emphasis on the Role of Improviser).

A Sense of Liberation

Another common experience associated with relinquishing lyrics is the singer’s sense of liberation from considering words in artistic decisions. Based on perceptions identified in the literature review (see Appendix A, Perceived Difference 20), the survey questioned whether there is an initial difference in the perception of the importance of communicating the lyrics by jazz performers. Jazz musicians were asked, “Is it usually important to you to communicate the lyrics of a song when you are playing/singing?” Of those who responded (instrumentalists, n=139; vocalists, n=63), 58.3% of instrumentalists (n=81) selected “yes” compared to 100% of vocalists (n=63) who made the same choice. “No” was nominated by 35.2% of instrumentalists (n=49) and 0% of vocalists (n=0), and “don’t know” was selected by 6.5% of instrumentalists (n=9) and nil vocalists. The results are illustrated in Figure 21 (see Figure 21).

Figure 21. Survey results showing whether jazz performers usually consider it important to communicate the lyrics of a song during their performance.
Chi square analysis reveals a very highly significant association between whether it was regarded important to communicate lyrics during a performance and whether the respondent was an instrumentalist or vocalist (\(\chi^2 (2) = 53.351, p < .001\)) (see Appendix O for the contingency table for Figure 21). The results show that vocalists usually place greater importance on communicating lyrics than instrumentalists.

Furthermore, instrumentalists were asked, “While you are playing a song with lyrics, how frequently do the words affect your musical choices?” Of those who responded (n=133), 9.8% (n=13) said “constantly”, while 21.8% (n=29) chose “frequently”, 14.3% (n=19) indicated “half the time”, 31.6% (n=42) said “sometimes” and the remaining 22.5% (n=30) nominated “never”. With over 50% of instrumentalists indicating that lyrics affect their musical choices less than half the time, the results further suggest that instrumentalists may not experience the same level of influence from lyrics on their performance compared to singers.

The difference in the influence of lyrics may account for the sense of relief vocalists describe experiencing when their perceived responsibility for communicating is removed after switching to scat syllables. As reported in the interviews, Ingrid, Libby, Nick and Naomi each noted the relinquishing of lyrics was characterised by a sense of freedom. Ingrid described improvisation as providing “much more freedom to experiment with different textures and different notes that you wouldn’t have with the lyric.” She saw scatting as offering the “opportunity to build a song to a heightened level” which the constraints of delivering lyrics may not afford.

From Naomi’s perspective, scat singing provided relief from being “boxed in by the lyric”. She said that without the lyrics, “the improv[isation] can sort of be anything”. Nick’s experience of freedom was expressed by a sense of permission. His statement, “I’m allowed to improvise when I have a scat solo”, implies a granting of liberties he would not otherwise have when singing lyrics. In contrast when he performed a melody with lyrics he described feeling “like you’ve got to be careful”.
Libby’s words also hinted she experienced liberation from the responsibility of delivering lyrics when she moved to scat syllables. In her interview, she said:

If I’m scatting with scat syllables then I don’t have to be expressing the lyrics any more. I don’t have to be going, “Some day when I’m awfully low” [lyrics from *The Way You Look Tonight*, Sher, 1988, pp. 395–396]. I don’t have to be thinking of the meaning of the words. (Libby)

Libby’s repetitive use of the phrase “I don’t have to be” complements Nick’s sense of receiving permission to let go of the responsibilities of delivering the lyrics and enjoy the freedom of scatting.

Section Summary: Relinquishing Lyrics

The findings of this section of the chapter showed that relinquishing lyrics produces some different experiences for singers compared to those of instrumentalists. Research revealed that vocalists may experience loss when transitioning from singing lyrics to scat syllables. Singers described giving up the “handle” or “security blanket” often relied upon as the focal point of their musical decisions. Feelings of loss were counter balanced by references to liberation. Some vocalists described a release from their perceived responsibility of communicating verbally with an audience, while others cited a freedom from being “boxed in”. The removal of words was also charged with creating conflict with the jazz singer’s perceived role of storyteller.

The findings discussed in this section are summarised in Figure 22 (see Figure 22). The figure illustrates the contribution relinquishing lyrics makes to distinguishing the singer’s experience of improvising from the instrumentalist’s.
Figure 22. Summary of findings on how relinquishing lyrics differentiates singers.

- Lyrics are replaced by scat syllables
- Grants permission to experiment more broadly
- Loss of central focus
- Liberation from constraints of communicating words
- May inhibit the role of storyteller

How relinquishing lyrics differentiates singers

Verbal Capability
Implementing Scat Syllables

The Difference of Implementing Scat Syllables

The removal of lyrics for scat singing produces the need for vocal sound to replace them. Scat syllables are, in essence, speech-like sounds lacking semanticity. The literature review showed the need to develop a scat syllable vocabulary is one of the perceived differences between vocalists and instrumentalists (see Appendix A, Perceived Difference 24). The interviews also recognised it. Louise pointed out, “There are different considerations with the whole scat syllables thing, which doesn’t come up with any other instrument.” This section of the chapter will explore how the practice of inserting scat syllables in place of text creates fundamental variations for vocalists in the experience of improvisation.

The Experience of the Difference of Implementing Scat Syllables

Developing a Scat Vocabulary

One common experience discussed by interviewees was the process of developing a vocabulary of scat syllables for what Ashley called the “palette”. Some interviewees described developing their vocabulary independently through a period of self-exploration where they, as Ingrid explained, “worked out what suited” them. Libby gave a description of her own period of self-exploration:

I would put on an Aebersold [recording] and I’d just make the most ridiculous noises. I’d just go and go and go. I felt really restrained by my own ability so I would make raspberry noises and just craziness…I used to just go through the alphabet and try everything. (Libby)

The survey asked vocalists to indicate all the methods they used to develop their scat syllable vocabulary. The participants who responded (n=35) nominated a broad range
of methods, with the most popular being the imitation of other vocalists (80%, n=28) and the imitation of instrumentalists (74.3%, n=26). Over half of the respondents (62.9%, n=22) indicated their approach was to make up their own syllables. A smaller proportion of the participants reported someone had taught them scat syllable conventions (25.7%, n=9), less had been directly taught syllables by a teacher (17.1%, n=6), and 5.7% of respondents (n=2) indicated they received instruction from books. Three respondents (8.6%) selected “other” and specified their methods as 1) learning which syllables were compatible with a microphone; 2) being directed by a feeling of personal comfort; and, 3) “I actually have no idea”. The results are illustrated in Figure 23 (see Figure 23).

*Figure 23. Perceived methods vocalists use to develop their scat syllable vocabulary.*

The two most popular methods identified by vocalists in the survey for the development of a syllable vocabulary rely on listening. The relationship between vocabulary and listening was cited in the interviews by Irene, Andrew, Ashley and Mark. References were made to listening to specific singers such as Kurt Elling, Sarah
Vaughan, Ella Fitzgerald, Mel Torme and Cassandra Wilson. Instruments, such as saxophones, trumpets and trombones, were also mentioned generally.

Ashley paralleled the learning of scat syllables with how humans acquire speech. He emphasised it is achieved by listening, not by reading books. Mark gave the same analogy and further suggested that books have limited benefits:

...It’s like learning a language just from a book without having that aural sensation. If we were to learn it perfectly, go over to France and say, [Mark speaks with a heavy Australian strine], “s’il vous plait, mate,” they’re going “what planet are you from?” (Mark)

To Mark, listening was regarded as crucial to learning the subtle nuances of implementing syllables.

This thesis will later show that vocalists use listening in the development of other fundamental improvisation skills. Ultimately, the difference between the listening practices of instrumentalists and vocalists has ramifications in a multitude of fields as well as acquiring a scat syllable vocabulary. These practices will be explored in Chapter 7: Findings on Music Learning Experiences (Familiarity with Referents and Procedures).

Subconscious Application of Syllables

The survey brought into focus the role of the subconscious in the selection and application of syllables. When participants were asked how their scat vocabulary was developed, one responded, “I actually have no idea.” Several interviewees also indicated they perform scat syllables without an awareness of them. Sharny said she does not personally “think about [syllables] at all” when improvising. Likewise, Dan B explained when choosing syllables he uses “whatever comes to me at the time.” He noted that he does gravitate towards some syllables but added, “Not that I could tell you what they are because I’ve never really thought about it too much.” Similarly, Sally
used the phrase, “it just kind of happens” when describing her experience with choosing scat syllables. Michelle said she acquired her scat vocabulary from “just learning solos and not ever thinking about what syllables I was using”. Each of these examples from participants suggest the selection and application of syllables may occur subconsciously. This opens debate on whether teachers can assist the process.

**Personal Preference**

Discussions of personal preference for scat syllables suggested that selection can also be a conscious choice. Ingrid described working out “what suited me for improvisation over certain songs”, while Mark reported preferring syllables that “work better with my nasally sound than others”. Sharny’s recommendation that singers use “what comes naturally to you as a person”, demonstrates her congruent perspective.

The role of personal preference in implementing scat syllables was also evident in what singers excluded deliberately from their vocabulary. When asked how he acquired his lexicon of syllables, Nick responded:

> I think partly where I get them is from hearing what I don’t like in scatting...I guess it comes down to who have I listened to a lot and whose scatting do I like, and what scatting do I not like and not want to sound like. (Nick)

Nick’s method of excluding syllables was mirrored by Sally. She found that, when developing her palette, “observing what I didn’t like was much easier to come across than what I did like.” To illustrate, she recounted hearing a university singer who started every line with “sah”. The experience resulted in her resolution, “I’m definitely not going to do that.” Kristin also chose to exclude actively a syllable from her vocabulary. She stated, “I don’t do ‘shoo’s.” She praised Ella Fitzgerald and Sarah Vaughan for their effective usage of the syllable but declared, if she were to sing it, “I should have something thrown at me.”
Personal preference is used evidently by some vocalists to include and exclude syllables from their vocabulary. What guides these choices appears quite individual. Ashley paralleled the uniqueness of each singer’s vocabulary to the individuality of voice: “…Everybody’s palette is different. Everybody speaks differently. Accents.”

*Imitating Instruments*

The survey showed 74.3% of vocalists (n=26) attributed developing their scat vocabulary to imitating the sound of instruments (see Figure 23). In discussions, several interviewees made the same connection. Jacki declared that, “Scat is about trying to sound like an instrument”. Her statement reveals her belief that it is a primary goal of scat. Both Michelle and Kristin said they aimed to “match” their syllables to the sounds of instruments.

Naomi reported receiving some specific instruction at university as to which syllables best imitated the sounds of particular instruments:

> If we were transcribing a Charlie Parker solo we’d be encouraged to use more of the “oo-vah, oo-vah” type things, the softer ones. Where as if it were Dizzy Gillespie or something it would be more of the “bah-dah” and “ba-dup-bup-bup”, the harder syllables basically to match the articulation of the instrument as closely as possible. (Naomi)

In essence, Naomi was instructed to link “softer” syllables to tenor saxophone solos and “harder” syllables with trumpets. Jacki also appeared to associate specific syllables with specific instruments:

> If you transcribe an instrumental solo you can hear different articulations on their instruments. It’s not always “do ba”. It’s often that softer consonant sound like “v” and “f”. A trombone will go “shwa”…You can hear that in the instruments. (Jacki)
These examples suggest a phonemic parallel may exist between vocal and instrumental tone.

Sally and Mark found their background training as instrumentalists offered some assistance in the selection of syllables for their scat vocabulary. In particular, Mark explained that he used “similar sort of sounds that I’d be making on a trombone” such as “bah” and “dwee”. He opted to use “bucket-of” to imitate triple tonguing on a trombone.

*The Idea of North* use the imitation of instruments for particular effect during performance by mimicking the sound of an instrument while miming playing it. For example in their past concerts, Sally has imitated playing a muted trumpet, Naomi has imitated a trombone, Nick has imitated a harmonica, and Andrew has imitated a double bass.

Overall, the survey and the interviews show that the imitation of instruments is often linked with implementing scat syllables. The findings suggest further investigation would be helpful to enquire whether certain syllables are more effective than others in representing particular instruments, and whether such paralleling is beneficial to performance.

“Vocal” Sounds

Aside from syllables inspired by instruments, there was also discussion in the interviews of sounds that are associated more closely with voice. Nick described them unfavourably as syllables that are “too vocal and too kind of language-based rather than instrumental”. One category of these “vocal” sounds identified in the interviews is syllables that use compound phonemes. Their sonic complexity mimics the construction of language rather than the comparatively simple tone of instruments. Sharny gave some examples:
I find it really a bit strange when you hear somebody scatting and they’re just going “zwee dup, zwee di dup, zoo doo doozie” and they’re doing all this kind of double consonants. It’s like they’ve heard Louis Armstrong do it once or twice but then they do it all the time and it’s too heavy, I think, and it doesn’t really sound as authentic as just bubbling along in whatever comes naturally.

(Sharny)

To Sharny, “double consonants” create a timbrel complexity which undermines the authentic jazz sound. Other interviewees also reported a negative reaction to complex phonemes. Naomi recalled being discouraged from using the syllable “dwee” at university “because it sounds twee”. Jacki also responded negatively when she was given a list of scat syllables by a voice teacher at university. The list included “squidley art oo” and “sk-bobbin”. She recalled:

I thought [it] was a joke and I laughed. Then he said “okay, let’s give it a go”. I said, “let’s give what a go?”....It was just ridiculous. I just laughed and I said, “I’m not doing that.” I said, “that’s not what scat is about. Scat is about trying to sound like an instrument”. (Jacki)

Jacki’s desire to sound like an instrument combined with Nick’s desire to “smooth [the syllables] out” and not sound “too vocal”, illustrates their preference to reduce the range of timbrel variance, which is central when producing spoken language.

A second type of “vocal” sound described by interviewees contains perpetual sliding pitch as found in speech, instead of the series of steady states found in song as described originally by Vennard (1968). *The Idea of North* perform one song which makes deliberate use of this type of “vocal” sound. In their a capella version of *Dear John* (Piper, 2010), two of the vocalists enact an argument between a man and a woman in a relationship. A combination of vocal inflections using sliding pitch and body language convey the wordless dispute to the audience. Nick observed that the audience responded positively to this technique during a performance.
The third type of “vocal” sound described by interviewees is when an English word is surrounded by meaningless syllables, thereby weakening the meaning of the word. Jacki and Naomi both identified words in this category; “cat ’n doggin’” and “gyno” (slang for gynaecologist). Neither options were regarded favourably by the women. Mark recalled two instances in performances where he deliberately used English words amid scat syllables to elicit a response. The first occurred as a private joke between himself and his band, highlighting the inattention of the audience:

You would have done those gigs where you’re just polyfilla, or you’re just at the back and everyone’s eating their canapés...I used to scat using naughty words in there for the whole thing and no one would know...Like ‘clitoris’ or something like that. I would do a whole a chorus or two and the band would be in stitches falling over... (Mark)

Mark’s second illustration demonstrates how he inserted English words amid scat syllables to build a connection with an audience:

I nicked a Kurt [Elling] in “buck-et-of, buck-et-of, buck-et-of lovin’”. [It] is one of his vocalese. It’s really good. It’s like triple tonguing—dug-ga-ta. So instead of me going “dug-ga-ta, dug-ga-ta, dug-ga-ta, dug-ga-ta,” which is great, but if you go “buck-et-of, buck-et-of, buck-et-of, buck-et-of” people say, “Oh, he’s saying ‘bucket’.” You turn an exercise that you do as a trombonist, triple tonguing or double tonguing, into something that might be mildly interesting by putting a word behind it. (Mark)

In this case, Mark substituted “dug-ga-ta” with “buck-et-of” in a series of fast triplets. In the initial repetitions the words are not clearly identifiable because they are isolated from any context. However, when he concludes with the word “lovin’” the words “bucket of” become recognisable retrospectively.
In summary, interviewees identified three kinds of sounds that were aligned more closely with voice than instruments because they had one of three characteristics; they contain complex phonemes, they use frequently sliding pitch, or they are English words used out of context. The use of “vocal” sounds as scat syllables received a mixed reaction from interviewees. Jacki and Naomi observed incidents where they considered “vocal” sounds detracted from performance. Conversely Nick and Mark reported occasions where they elicited a positive response from the audience.

*Trends*

It is possible the use of scat syllables by vocalists is subject to trends. Knowledge of trends may be relevant to singers but unnecessary for instrumentalists. The study sought to investigate whether there is a difference between vocalists and instrumentalists observing scat syllable conventions in performance, as found in the literature review (see Appendix A, Perceived Difference 23). The survey asked vocalists, “Do you think there are conventions influencing why some scat syllables are used and not others?” Of those who responded (n=35), 57.1% of respondents (n=20) indicated “yes”, while 25.7% (n=9) selected “no” and 17.2% (n=6) were “unable to comment”. The results show a perception among respondents that scat syllable conventions do exist.

Several interview participants also identified the existence of trends. Ingrid noted “a bit of a pattern through different eras of using different scat syllables”, and Irene made reference to “that sort of fifties scat language”. Naomi gave a more specific example:

> I think culturally there are different syllables that get used. “Dwee” gets used a lot in America and we got discouraged [at university] from using that because it sounds twee, ironically, and I would definitely agree with that. (Naomi)
Naomi’s observation that “dwee” was embraced in America but not in Australia raises the possibility that some trends may form in geographic regions despite the effect of globalisation. Libby provided another example:

I’ve noticed, maybe it’s because I’m from Perth [Western Australia] which is more isolated, that the Perth singers tend to sing scat more like each other and use scat syllables that are more similar. The reason I notice this is because when we get a scat singer come over from the eastern states [of Australia], you can tell where they’re from by the way they scat. For example, in Perth there hasn’t really been a culture of using “f” or “v”. We don’t go “va, va, va, va” when we scat. But in the Eastern states, in Melbourne, people do use those syllables when they scat. So I think there’s also a locational aspect to scatting convention that depends on who you are listening to. If you’re listening to your contemporaries in your city you will tend to scat like them. Particularly in Perth, being a bit more isolated, we have our own little scat culture here. (Libby)

Generally, the interview and the survey findings suggest trends in the usage of scat syllables do exist. As a consequence, there is a need for further investigation into whether knowledge of these conventions is beneficial to vocal performance, how students can acquire this knowledge and how pedagogues may teach it. It seems unlikely this knowledge would be of equal value to improvising instrumentalists however the possibly should not be discounted without investigation.

Music Style

Another factor that was noted in the interviews was the impact of music style on syllabic choice for improvisation. Ashley gave this example of what he called scatting “on the style of the song”:

If I was singing a fast swing number then I would be scatting with more of the “do”s and “ba”s and the bebop phonetic system... If you listen to gospel music
and the way they phrase and sing, there is a lot more of the “oo”s and “ah”s. There is no “do ba do ba do” because the tempo is different. The music is different. Definitely the choice of scatting changes markedly. (Ashley)

Ingrid also observed a distinction between the syllables she selected for bebop and other styles of music. She noted that bebop “tends to work much better with the more traditional scat syllables”. In contrast she reported using syllables which were “a little more languid and fluid” for “other styles” of music.

Although participants acknowledged adjusting their choice of syllables to fit different musical styles, the changes were not necessarily consistent. For example, Sharny said she preferred to use “a lot more percussive consonants like k, j, g” in Latin tunes. Libby, on the other hand, reported Latin music prompted her to use “di, dees”. The connection between style and syllable usage requires further exploration to see if there is any consistent correlation, and if so, how this knowledge is acquired and transmitted.

Scat Syllables are Subordinated in Importance

The change from lyrics to scat syllables appears to alter the emphasis in musical priorities for some singers. While lyrics were reported as central to vocalists’ thinking, scat syllables were sidelined. For example, Sharny, who described previously using lyrics to direct her creative musical decisions, did not approach scat syllables in the same manner. Instead, she explained, “I go for what I want musically and then let my syllables follow along and become what they need to be to make that really work.” Her change of priorities is evident in the transformation from regarding lyrics as “very important”, to advising her improvising students to, “Forget about the syllables.” She encourages students to, “Just do what comes naturally when you’re looking for a good tune or a good rhythm.” Mike concurred that phrasing choices in a “good solo” will “tend to lead you towards different syllables”. Michelle showed the same low
prioritisation of focussing on syllables. She commented that thinking about syllables is “the last thing I consider” when improvising.

The change in focus experienced when moving from lyrics to scat syllables was also reported by Melissa. Melissa’s thinking altered from regarding lyrics as “important” to seeing scat syllables as “subordinate to the actual note.” The move from interpretation to improvisation changed her behaviour to “focussing most of my energy [on the note] rather than the sound that’s going to carry that note or the syllable.”

These comments from each of the interviewees show some vocalists experience a change in thinking when they begin to solo as they move from prioritising lyrics to de-prioritising the scat syllables which replace them.

*Scat Syllables can Disrupt the Singer–Audience Relationship*

Some interviewees reported a change in their interpersonal connection with an audience when they moved from lyrics to scat syllables. This experience is consistent with the perception found in the literature that there is a difference between the connection of vocalists and instrumentalists with an audience due to lyrics (see Appendix A, Perceived Difference 21). The survey sought to substantiate this perception by asking jazz musicians “Do you think vocalists have a stronger connection with audiences than instrumentalists because they sing lyrics?” Of those who responded (n=202), 75.2% of respondents (n=152) agreed, 20.3% (n=41) said “no” and 4.5% (n=9) selected “don’t know”. The results are illustrated in Figure 24 (see Figure 24).
Chi square analysis reveals there is no significant relationship between this opinion and whether the respondent was an instrumentalist or vocalist ($\chi^2 (2) = 5.913, p = .053$) (See Appendix O for the contingency table for Figure 24). It shows that it is a common perception amongst all of the surveyed jazz musicians that because they sing lyrics, vocalists are seen to have a stronger connection with audiences than instrumentalists. This result supports the link that a change from lyrics to scat syllables may trigger a change in the singer’s interpersonal connection with an audience.

In the interviews, Michelle gave an illustration of how scat disrupted her link to her some audiences. She described a very marked reaction at times:

[Scatting is] quite confronting, I think, to most people because they go “what’s going on? I don’t understand this. I understand when someone’s singing me a song. Now what are they doing?”…I certainly remember doing gigs where, for
instance if I was doing a function type of gig, if I start improvising you can just tell. People go, “what the hell’s going on?” (Michelle)

Michelle also noted the audience’s reaction to scatting was unique to vocal improvising: “If you take the words away it’s still quite confronting for [the audience] I think. Whereas I don’t think they feel that way when the rest of my band solo.”

The survey and interview data support the idea that the singer’s stronger relationship with an audience, established through lyrics, can be disrupted when scatting begins. The significance of the disconnection will be explored later in Chapter 6: Findings on Embodiment (Performer–audience Relationship Expectation).

Teaching Scat Syllables

The survey and interviews offered information on current efforts to teach scat syllables. Six vocalists in the survey reported they had been taught scat syllables and nine indicated they had been taught syllable conventions. In the interviews, tertiary jazz educators Louise and Jamie indicated at their institutions scat syllables were not being taught in ensemble or improvisation classes where singers and instrumentalists were in a combined class. They did however report their assumption that the topic was being covered in vocal master classes or private voice lessons. As a former student of one of these institutions, however, Melissa, did not recall receiving this training from her voice teachers during her studies. It raises doubt concerning the assumption that the active teaching of syllables is occurring.

At his university, Bruce noted there is “evidence of [scat syllables] being talked about” with vocalists but he was unsure where. He suggested students in small ensembles “could well be advised of some possibilities of syllables to use” and “using consonants and vowels in an appropriate way”. He admitted however, “there’s not the scope for much in most of the classes except for master class and one to one vocal lessons...”
The comments from tertiary jazz educators Louise, Jamie and Bruce suggest discussions of scat syllables are more likely to take place in vocal classrooms than in improvisation or ensemble classes where instrumentalists and vocalists are combined. However the finding from Burwell (2006, p. 345) that lyrics are generally a major focus in voice lessons raises questions on how frequently scat syllables are addressed explicitly. Further investigation is required.

Section Summary: Implementing Scat Syllables

The findings of the second section of this chapter showed that the implementing of scat syllables introduces some variables for improvising singers that are likely to be superfluous to the experience of instrumentalists. Research revealed that vocal improvisers use a variety of methods to develop a scat vocabulary, with the two most popular methods relying on listening to other jazz musicians. Application of the vocabulary was described as being largely subconscious, although awareness of personal preferences prompted some singers to gravitate to choosing some syllables and consciously bypassing others. Imitating instruments motivated syllable selection by some participants. “Vocal” syllables that assimilated complex phonemes, sliding pitch or had recognisable semantic meaning were avoided intentionally by other participants unless deliberately evoking an audience response. Syllable selection was also seen to be affected by trends and music style. Some singers noted that the change from lyrics to scat syllables altered their creative priorities, with syllables becoming subordinate to other musical decisions. Interviewees further noted how the substitution of scat syllables for lyrics could disrupt their relationship with an audience during performance. Finally, the processes of acquiring and implementing scat syllables were reported to receive limited and inconsistent attention by educators.

The findings discussed in this section are summarised in Figure 25 (see Figure 25). The figure illustrates the contribution implementing scat syllables makes to distinguishing the singer’s experience of improvising from the instrumentalist’s.
Figure 25. Summary of findings on how implementing scat syllables differentiates singers.

- Developing a scat vocabulary
- Syllables may be selected and applied subconsciously
- Limited teaching of scat syllables
- Inspired by imitating instruments
- Personal preference may affect conscious syllable selection and application
- Avoidance of “vocal” sounds unless for effect
- Trends may affect scat syllable selection
- Music style may affect scat syllable selection
- Scat syllables subordinated in musical priorities
- Scat syllables may disrupt the singer-audience relationship
- Verbal Capability
Pedagogical Implications of the Difference of Verbal Capability

The findings presented in Chapter 5 demonstrate that vocalists’ unique verbal capability produces experiences in improvising that differ from those of instrumentalists. These differences generate implications for jazz vocal improvisation education. The first section of the chapter identified how the act of scatting requires vocalists to relinquish lyrics producing a sense of loss and liberation. The liberation arose from lifting the constraints of honouring the rhythm and accent of words, and communicating their meaning. Singers also identified feelings of loss and uncertainty when their “security blanket” of lyrics was removed and they were forced to direct their attention to other performance components. These experiences of vocalists offer educators teaching opportunities. Pedagogues may be able to assist students’ liberation by redirecting their creative focus. Similarly teachers of jazz singers may alter the emphasis in their lessons from communicating lyrics to other skills. This may be a significant redistribution of time given the research finding that delivering lyrics often occupies a central focus in vocal lessons.

The second finding regarding verbal capability discussed in the second section of this chapter is the experience of implementing scat syllables to replace lyrics. The resultant pedagogical implication concerns if, when and how syllables can be taught. Sharny, Melissa, Ashley and Andrew each reported successfully acquiring a scat syllable vocabulary themselves, which suggests teaching syllables may not be a productive use of the educator’s time. There was also the concern from some interviewees that bringing conscious attention to learning syllables may cause singers to accent them inadvertently, thereby losing a desirable flowing, instrumental quality, which Nick described as being “smooth”. Kristin reported she did not wish to transcribe syllables nor think of them as nonsense syllables because she “didn’t want them to become more than sounds.” It is possible teachers may bring undesirable attention to syllables and inadvertently undermine the preferred subservience of syllables to the choice of notes.
Combined, these findings suggest teaching syllables could be detrimental to jazz vocal improvisation education. Unintentionally emphasising the syllables’ importance and detracting curriculum time from other priorities raises concerns. Proponents of this argument may suggest that the teacher’s role should be limited to encouraging students to make their own exploration and acquisition.

There is, however, also data that support the converse argument that teachers can make a worthwhile contribution to the students’ experience of learning syllables. Sharny, Libby and Michelle each described a frequent demand by students for guidance on which syllables to sing. Libby described it as a singer’s “need” which teachers can meet. Jacki detailed her process of coaching students through particular syllables in order to “[get] the sounds under their tongue”. Jacki’s experience suggests that teaching scat syllables can make a positive contribution in developing students’ ease and familiarity with a basic vocabulary. Kristin and Libby also discussed actively with students the importance of comfort. Without comfort with the syllables, Kristin explained, students “won’t try to solo because they feel silly”. This argument alone makes a strong case for the inclusion of syllables in vocal curriculum.

Another contribution educators may offer in teaching scat syllables is to make conscious any identifiable syllable conventions. The “unofficial phonetic alphabet”, which Ashley described, suggests there may be some basic, consistent trends which students can be taught. The potential for a singer to select unsuitable scat syllables is a variable in improvisation performance that instrumentalists do not experience. The teacher may be able to assist students to minimize this error by familiarising them with conventions. As already discussed, such assistance first requires research on the topic to identify syllable trends and their applications.

The positive comments made in the interviews support the argument that teachers can contribute to students’ improved implementation of scat syllables. The imparting of conventions, assisting with comfort and providing a basic lexicon of syllables for beginners are all opportunities where the teacher’s input may be beneficial. Overall,
the exploration of this research has revealed areas of potential benefits and reservations about pedagogical intervention in addressing the singer’s unique verbal capability. Current practices of teaching students to adjust to relinquishing lyrics and implement scat syllables are largely unexplored in research. The full measure of pedagogical implications may not be known until further investigations are conducted.

Chapter Summary

Chapter 5 has explored verbal capability as the second of five primary categories of how improvising jazz vocalists differ significantly from instrumentalists. The side-by-side analysis and discussion of quantitative and qualitative data obtained from the survey and interviews revealed two areas of differentiation; the relinquishing of lyrics and the implementing of scat syllables. This is summarised in Figure 26 (see Figure 26). The chapter concluded with a discussion of implications for jazz vocal improvisation education and recommendations for further research.
How improvising jazz vocalists differ from instrumentalists

Verbal Capability
* Relinquishing lyrics
* Implementing scat syllables

Motor Feedback
Role
Embodiment
Music Learning Experiences

Figure 26. Summary of Chapter 5: Findings on Verbal Capability
This chapter has also illuminated areas of overlap in the thesis between the effect of verbal capability and other primary categories of difference. Table 5 provides a visual summary of the intersections (see Table 5).

Table 5. Intersection of verbal capability with other subcategories of difference.

<table>
<thead>
<tr>
<th>Verbal Capability</th>
<th>Embodiment</th>
<th>Music Learning Experiences</th>
<th>Role</th>
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<tbody>
<tr>
<td>Relinquishing lyrics</td>
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<tr>
<td>Implementing scat syllables</td>
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= Findings show a relationship between categories

Together, Figure 26 and Table 5 demonstrate how verbal capability contributes to distinguishing vocalists as significantly different from instrumentalists.
Chapter 6: Findings on Embodiment

The third category for exploring how improvising jazz vocalists differ from instrumentalists is embodiment. Embodiment encompasses the unique location of a musical instrument inside a living human body. This chapter will explore the physiological and psychological consequences of embodiment in three sections; the organic instrument, personal representation and performer–audience relationship expectation. Each section will progress from how vocalists differ from instrumentalists to how the difference is experienced by vocalists. The chapter will conclude by extrapolating pedagogical implications of embodiment for vocal jazz improvisation education.

The Organic Instrument

The Difference of the Organic Instrument

Literature shows that vocalists and instrumentalists encounter fundamental differences in the instrument they “play”. While instruments are composed of natural and/or manufactured materials, the vocal instrument is a unique, complex and wholly organic structure located inside the living human body. This difference, noted in the literature review (see Appendix A, Perceived Difference 36), was identified by interviewees. Irene made the distinction when discussing vocal range:

What we know about voice, and this is from the science, is that it is folly to take a voice as an instrument, because it’s flesh and blood, it’s muscle...[T]his is a muscular instrument. (Irene)
Naomi made reference to the organic nature of the vocal instrument when pointing out the broad range of timbres possible with a human voice:

All the parts that [vocalists] have in their bodies produce a certain sound, but that doesn’t limit you to that sound. You can do with that whatever you want and as long as you have control over your body and your musculature...(Naomi)

Libby observed the fluctuating state of the living, vocal instrument when contrasting its sound with that of keyboards:

Having a voice sound is a reflection of what’s going on in your body...This keyboard in front of me sounds different when different people play it but it’s the same instrument. An untrained ear in the next room might not be able to tell the difference between me playing it and my husband playing it...(Libby)

To Libby, a living, organic instrument introduces variability in the instrument itself. In comparison, the status of other instruments, such as a keyboard, is relatively fixed.

Kristin distinguished voice from other instruments when contrasting its susceptibility to physical health:

No matter how you’re feeling, if you’ve got a keyboard and you’re going...[Kristin presses her fingers on the table as if playing], the keys are going to work unless there’s a malfunction. Whereas with singing, it could be that you’re tired. It could be that you’re sick. It could be that you’ve got a kid and you didn’t have any sleep or whatever it is, that can affect those things. (Kristin)

Kristin’s observation juxtaposes an isolated, mechanical “malfunction” of an instrument with the fluctuating function of a living vocal instrument which responds organically to environmental factors. Overall, the interviews show agreement with the
The organic nature of the vocal instrument generates some particular experiences for vocalists, as recounted by the interviewees.

Susceptibility to the State of the Body

In discussions of performance, interviewees referenced frequently the impact of the state of the human body on vocal function. While some noted that physical ailments can affect instrumentalists’ performance, it was agreed generally that the organic nature of the vocal tract makes it more susceptible to change in its structure and function than non-living instruments. For example, Ashley reported having the flu did not affect his ability to play trombone and yet he said he could not always sing. Jacki also cited the flu as affecting her voice significantly. She recalled how at one performance her timbre changed so much she “became Barry White as the evening went on.” Kristin experienced the growth of nodules on her vocal folds which affected the function of her vocal instrument. She was required by her doctor to cease all singing and talking for two weeks.

Illnesses occurring outside the vocal tract were also reported by interviewees to impact negatively on vocal performance. Ashley described a period of ill-health from pilonidal sinus:

I had an infection that I ended up having about seven operations over the period of the next two years. I was on antibiotics in the mean time with all the operations and things. Basically for the next two years it was like permanently having a cold. I was able to sing and I was able to continue singing the jazz but
to push through the upper register and through the break and sing all the repertoire that I wanted to sing, I literally couldn’t do it. (Ashley)

Jacki’s vocal performance was affected by surgery to remove a fibroid from her uterus. The surgery impacted on the muscles she used for breath support while singing. She recalled it took three months to “feel like I was back on top of things when I sang”. With more surgery pending at the time of the interview, she predicted she would be unable to perform for the approaching Christmas season.

Aside from illness in the vocal tract and other parts of the body, interviewees also cited the impact of general states of the body on vocal performance. Kristin mentioned nervousness and burping as two conditions that affect her vocal performance. Andrew, Melissa and Jacki each cited tiredness. Andrew noted that the pitch of an a cappella piece can “drop” when the lead singer is tired or “energy is low”. Melissa said that tiredness can affect the vocalist’s capacity to sing for long periods. Likewise, Jacki attributed the length of practice time being limited due to the “very delicate” vocal cords and the “very small” muscles around them. Jacki also cited menstruation as another natural, physical condition that impacts on female singers:

If you’ve got your period and you’ve got bad bloating or just bad period pain you’ve got to be able to sing and use all those muscles at the same time. It’s really difficult. It used to be “oh it’s an old wives' tale that you can’t sing when you’ve got your period because you sing flat.” Well, I think it is very relevant actually. It’s different for every woman but, yes, I do think that when you’ve got your period it’s going to make a huge difference to how you sing that day. (Jacki)

Jacki further revealed how one singer she knew used the contraceptive pill to suppress menstruation to eliminate the impact while recording her album.
Overall, the susceptibility of the organic vocal instrument to illness and other natural states of the body was perceived to affect the function, stability and endurance of vocal performance to a greater extent than that observed of instrumentalists. Attire was also noted to at times affect the function of the vocal instrument. This effect will be examined in Chapter 8: Findings on Role (More Emphasis on the Role of Performer).

**Universal Possession**

The location of the vocal instrument inside every human produces a unique, universal possession of the vocal instrument for every human. Discussions contrasted the need of instrumentalists to purchase and actively learn their instrument, with the ready access to an inbuilt vocal tract that is used by all humans from birth. Libby described voice as “a special instrument in that everyone has one”. Likewise, Melissa agreed it is “something that everybody has” whereas she noted the “skill” of playing an instrument is “something that few people have”.

The free and universal access to singing was a consideration for Ashley and Kristin when learning music. Ashley suggested singing is a popular option for people to pursue because it does not cost anything to learn. Kristin reported feeling guilt when giving up learning instruments in favour of something that was “inbuilt” because her parents had “spent all this money on instruments”.

**Singing is Easier**

Interviewees also connected the universal human experience of possessing and using a voice with a perception that singing is easy. Sharny described singing as “just something that comes out of us that doesn’t have to have a formal background.” Ashley made a similar observation:
Nobody has to pay for a lesson or do anything to sing. They can all sing along in their car...Then it reaches a stage where someone feels they want to do something musically. The quickest and the easiest thing to start doing is singing because they don’t need to go and buy an instrument or anything. (Ashley)

As Ashley pointed out, the universal human experience of accessing and using a voice contributes to the perception that singing is easier than playing an instrument.

Several interviewees viewed singing as easier because there is no need to locate external buttons or keys. Instead, pitch is maneuvered internally and subconsciously, as discussed in Chapter 4: Findings on Motor Feedback (The Role of Audiation). Mark pointed out that many people can sing with “no thought” to the operation of their voice, yet learning an instrument takes great attention “before you can play”. Ashley said that when he scats, “Whatever I’m feeling in the tune is just coming out and there is no restriction”. In contrast, when he plays an instrument he has to “get my fingers to go there”.

Dan B described a similar lack of restriction that the vocal instrument offers:

With the voice there’s less things hindering you to be able to get out what you want to say. With the trombone you’ve got chops and lips and tongue and arm and your range and all that sort of stuff...With the voice they don’t tend to be a hindrance. If you’re a good performer on both instruments, voice is easier to get. (Dan B)

Mark and Sharny both regarded singing as easier than playing because of the technical difficulties they experienced with their instrument. Sharny said she does not have “the chops always to go where I’d like to go” when playing keyboard. In contrast, she found vocal improvising “much easier because whatever I hear I can just go there”. Likewise, Mark explained, “if I’m having bad chop problems, like I haven’t been practising, I
would prefer to perhaps just try and do a scat solo because I think I can get around it a little bit more.”

Michelle also generally viewed singing as easier than playing instruments:

I tell my students this all the time, “when you can sing, you know, it’s pretty bloody easy.” I mean it is...especially coming from playing the violin which I found so incredibly hard because you’d have to practise four hours a day before you can sound half decent, and I didn’t...And to know how hard you have to work to get anything happening, and then to swap over to voice it was like “oh my goodness. This is so easy.” (Michelle)

Michelle’s contrasting of the hours she spent practising violin with the ease of singing suggests this aspect of the organic instrument may contribute to a difference in the vocalist’s approach to music practice. This will be examined in Chapter 7: Music Learning Experiences (Approaches to Self-directed Music Practice).

Ashley and Sharny both illustrated the ease of singing with references to everyday people singing in the shower. Sharny further described singing as “a natural thing” that does not require training. Libby showed concern that the perception that singing is easy and does not require training may affect vocalists’ attitude to practice: “I think that there are misconceptions about being a singer because everyone has a voice. I think there’s a feeling that singing must be easy because everyone can do it.”

The ease of singing was also referenced by interviewees who described shifting in their careers from instrumental to vocal performance. Michelle said she found switching to vocal studies from violin easy because singing is a “natural thing”. Ashley’s transition from brass player to singer in his band happened within one week. After firing the regular singer, Ashley went to the next rehearsal with a page of typed lyrics and stepped instantly into the role of singer. Dan Q experienced a similar effortless role change. He described how he “fell into singing” because the new venue manager at his
regular trumpet booking wanted a singer. Dan Q bought a sound system then turned up the following week to the performance as the singer.

In all, the findings show that the embodiment of the vocal instrument is connected to experiences of the ease of singing.

*Variable Pitch without the Capability of External Gross Adjustment*

One specific difference of vocalists identified in the interviews is the inability to artificially tune the vocal cords. Due to their location inside a human body, all pitch adjustments must occur internally and organically. There is no means to superimpose global, gross adjustments. In contrast instruments can be tuned manually by, for example, turning pegs or adjusting the length of tubing.

The interviews yielded examples of how the singer’s lack of an artificial, manual tuning mechanism impacted on vocal performance. As an a cappella group, *The Idea of North* is particularly susceptible to the difficulties of working with the variable pitch of the vocal apparatus. Andrew explained:

> There are times when I can feel [the pitch] dropping and I’m trying to keep it up as the bass, and sometimes it just won’t happen. It’s just naturally wanting to fall for whatever reason and as much as you try you may not be able to save it, so you just have to go with it ...[Y]ou might be trying to pitch it up but you can’t, so then you’ve got to follow that lead and go “okay, so this is where they’re feeling it so I’m going to slot in there” and we’ll lock it in there. (Andrew)

Mark described a similar difficulty when attempting to sing an a cappella introduction in performance. The absence of any external, global tuning mechanism opened the door to considerable dropping of pitch to which the accompanying instruments were not susceptible. He recounted the experience:
It was one of my first ever gigs as a jazz singer and I thought, “I’ll do this a cappella, and you guys come in at the B section”. I was showing my chops... Anyway, I come in and the guys have gone “da” [imitates playing a chord on the piano]. They look at each other and go “da” [imitates playing another chord in a different position]. They didn’t say anything. They kept going through it. And I’ve gone “thanks guys that was good.” About three months later they said, “you know when you sang that,...well you’d sunk about a third, mate.” (Mark)

Mark’s experience shows that while he had lost significant pitch in his vocal performance, the accompanying instruments were not affected at their first entry. Combined, Andrew and Mark’s illustrations demonstrate the vulnerability to change in tuning when no artificial, mechanical means can be imposed.

**Variable Timbre**

The organic nature of the vocal tract opens it to large variations in timbre as well as pitch. Bauer (2007, p. 136) distinguishes voice as having “the widest timbral range of all instruments”. Interviewees discussed the effect of the fluctuating state of the body on vocal tone compared to the relatively fixed, static structure of instruments. Naomi related how “control over your body and your musculature” allows singers the freedom to “create a voice that you want”.

Several interviewees identified substantial changes in timbre between jazz and classical singing voices. Melissa described using “a particular voice” for classical and a “fun voice” for “everything else.” She said she saw the voices as being “very much in two separate boxes”. Jacki described the change between singing classical and jazz as “finding a different instrument inside your mouth”. Mark referred to the jazz voice as having a distinct sound which was “so far away” from the classical sound. When Nick experienced some voice lessons from a classical voice teacher he said it “felt like I was putting on a voice to sing classical music...” His language suggests an awareness of a significant change in vocal timbre.
The production of classical and jazz voices from the same vocal tract demonstrates that voice is capable of a broad variety of timbres. Irene explained how physiological alterations can produce different timbres:

[Classical singers are] trained to keep a lowered larynx...With the muscle coordination in the larynx itself, they are what’s call lengthener dominant, so there’s always a sung sound. Now as a jazz singer, we need to be in speech quality because it is a conversation and singing original Gershwin keys as jazz songs just does not work. (Irene)

As discussed previously, vocal health and states of the body also contribute to substantial changes in timbre, including for example, changing Jacki’s voice to sound like Barry White. The result is the observation that a vocal instrument produces a wider range of timbres than other individual instruments.

Section Summary: The Organic Instrument

The findings of this section of the chapter showed that the organic nature of the vocal instrument produces some different experiences for singers compared to those of instrumentalists. Research revealed that vocal performance is highly susceptible to the physical state of the human body. Participants described vulnerabilities in the function, stability and endurance of their vocal apparatus. The research also showed that possession of a vocal instrument is a universal human experience. It encourages a perception that vocalising is a natural and easy act that does not require an investment of training. Discussions of the unique location of the organic vocal instrument inside the human body also triggered references to the challenges of locating desired pitches. The research revealed that, unlike instrumentalists, vocalists cannot impose global tuning artificially on their pitch making apparatus (i.e., the vocal folds). The inability to externally affect the pitch of the vocal instrument was further complicated by an inability to fix vocal timbres permanently. Consequently, fluctuations in the state of
the body became a marked point of contrast for singers compared to the relatively static nature of artificially created instruments.

The findings discussed in this section are summarised in Figure 27 (see Figure 27). The figure illustrates the contribution the organic instrument makes to distinguishing the singer’s experience of improvising from the instrumentalist’s.
Figure 27. Summary of findings on how the organic instrument differentiates singers.
**Personal Representation**

**The Difference of Personal Representation**

A second feature of the embodied vocal instrument is that voice is perceived to represent the person who produces it. The research reveals that its capability of expressing personal thoughts and feelings encourages vocalisation to be interpreted through this filter more readily than instrumental output. In the interviews, Sally, Naomi and Andrew demonstrated the connection between voice and self by their use of language. Sally commented: “When you’re singing, if people don’t like the sound, they don’t like you, kind of, because it is you.” Sally’s metaphor that vocal sound “is you” underscores her perception that voice represents a person. Likewise, Naomi used the same linguistic device when reflecting that singing can be “scary because it is you that you’re putting out there.” Andrew made a similar interpretation when he compared his experiences as a trumpeter and a singer:

> When you’re creating the sound on your instrument, that’s the “voice”, that’s the sound. But when you take that away, the instrument is you and the sound that you’re making is you. It’s your voice. I find that a lot more exposing and personal in a way, even though you can connect so beautifully with an instrument. (Andrew)

Andrew’s language shows a belief that there is a closer association between self-portrayal and vocal sound than instrumental sound. The intimate connection was also demonstrated in language used by Nick, Melissa, Naomi and Libby. Nick described voice as being “part of you”. Melissa used the same phrase in her comment, “a voice is part of you as a person.” Likewise, Naomi viewed vocal performance as “giving yourself, something that is innately you, to an audience”. Libby expressed a similar standpoint when reflecting, “You can’t deny that a voice is more of a reflection of who you are...”
Vocal performance was regarded by Melissa as being uniquely capable of portraying the depth of a person. She reflected on her experience of hearing vocalist Kurt Elling in concert:

As soon as [Kurt Elling] opened his mouth I was brought to tears because it was just really a very deep sound that came from so deep within him or something. I don’t know what it was but it was just like “Oh my God.”

When reflecting further on what she witnessed, Melissa concluded, “There’s something more that’s required there, a deeper sense of yourself and your ability to communicate with people, an emotional intelligence I suppose.” Her observation recognizes an added dimension of personal representation when interpreting vocal performance.

Overall, the interviews revealed a perception that singing is associated more strongly with personal representation than instrumental output.

The Experience of the Difference of Personal Representation

The perception that voice represents a person generates some particular experiences for singers, as detailed in the interviews.

Integrity

The literature review identified a perceived difference between the desire for expressive integrity in performance by vocalists and instrumentalists (see Appendix A, Perceived Difference 22). The interviews provided examples of vocalists who prioritised an accurate and congruent representation of their person in performance. Ingrid, Michelle, Libby, Jacki, Sharny, Kristin and Ashley each reported not performing songs with lyrics that contradicted their personal beliefs or life experiences. Dan B disclosed his perspective:
I choose songs on lyrics. I’d say I’ve been doing that since probably studying with Mark [Murphy]. That’s how I choose a song. If I listen to a song and go “oh that’s got nothing to do with me or my life” I’m not going to sing that song. (Dan B)

Dan B’s exclusion of songs that did not represent him demonstrates a desire for congruency in self portrayal. In further discussion, he revealed that he does not apply the same litmus test for instrumental repertoire. When asked if he would exclude a song from trombone performance based on lyrics he responded, “No. Not at all...That’s just a melody then. I’d play it.” Dan B’s answer showed a change in approach when he switched from voice to trombone. It suggests his vocal performance invited an additional desire for integrity in personal representation which his instrumental performance did not.

The survey investigated whether there is a statistically significant difference between instrumentalists and vocalists in their desire to identify with or be comfortable with the lyrics of a song. Jazz musicians were asked, “Do you have to emotionally identify or be comfortable with the lyrics of a song in order to perform it?” Of those who responded (instrumentalists, n=139; vocalists, n=63), 27.3% of instrumentalists (n=38) said “yes” compared to 69.8% of vocalists (n=44) who made the same choice. Conversely, 64.8% of instrumentalists (n=90) nominated “no” compared to 30.2% of vocalists (n=19) who selected likewise. The remaining option, “don’t know” was nominated by 7.9% of instrumentalists (n=11) and nil vocalists. The results are illustrated in Figure 28 (see Figure 28).
Chi square analysis reveals there is a very highly significant relationship between whether the respondent was an instrumentalist or vocalist and whether they felt they have to emotionally identify or be comfortable with the lyrics of a song in order to perform it ($\chi^2 (2) = 36.625, p < .001$) (see Appendix O for the contingency table for Figure 28). The findings show that vocalists are more likely to exclude repertoire that is personally incongruent, demonstrating a desire for integrity in personal representation in performance.

The results of the survey are consistent with the interview responses. Interviewed singers gave examples of rejecting repertoire that did not portray them accurately. Ingrid reported “steer[ing] away” from autobiographical songs that she could not “claim” as her own personal experience. Her desire to “claim” experiences implies a preference for an accurate representation of herself and/or the song. Likewise, Ashley
reported he will not sing *My Way* (Stang, 2001, pp. 264–265) because the lyrics are not congruent with his personal history. Sharny reported eliminating repertoire that conflicts with her personal beliefs. Consequently she will not sing songs about murder (i.e., *Mack the Knife*, Stang, 2001, pp. 240–241), or songs where women are a “doormat to an abusive man”.

Jacki, Michelle and Libby each expressed an unwillingness to sing songs that are racially sensitive, such as *Strange Fruit* (Wong, 1988, p. 364), *Work Song* (Wong, 1988, p. 434) or *Black and Blue* (Sher, 1991, p. 22). Jacki explained her reluctance as “some songs...shouldn’t be sung by a lucky white girl in a free country. I don’t have that right.” The right to which Jacki refers belongs presumably to a singer whose personal background is more consistent with the experiences described in the lyrics. Again, the vocalist’s desire for integrity in personal representation is demonstrated.

In all, the findings of the survey and interviews confirm that integrity in personal representation is influential in the vocalist’s experience. It must, however, be noted that this observation arose in the context of discussing lyrics. No examples were given that suggest integrity is challenged during scatting. Irene and Naomi described continuing the story of the lyrics into improvised solos, however no conflict with personal integrity was cited. It is possible that the desire for singers to represent themselves accurately is eliminated when lyrics are removed. More research is required to ascertain if the desire for integrity in personal representation continues to exist during vocal improvising.

The only direct impact of personal integrity on vocal improvisation arose in discussions of repertoire selection. Songs that were excluded from repertoire based on lyrics also excluded inadvertently the opportunity to improvise over them. For example, Jacki refused to sing the lyrics added to Sonny Rollins’ bebop song *Oleo* (Sher, 1988, p. 249). She likened them to a butter commercial. She considered the song to be “just not singable and shouldn’t be sung ever.” Perhaps the sheer speed and quantity of words often found in bebop tunes will in themselves discourage vocalists from attempting the
jazz style. In contrast, lyrics do not appear to be an obstacle for instrumentalists wishing to play bebop. As Dan B illustrated, once lyrics are removed, he does not hesitate to play a song because it becomes “just a melody”.

Aside from maintaining integrity by excluding songs from vocal repertoire, some interviewees reported using acting to overcome incongruence. Through acting, the singer maintains personal integrity by intentionally representing another person in role play. Michelle and Naomi both reported using acting skills to perform religious songs which contradicted their personal beliefs. Libby utilised acting when she was forced by circumstances to perform a racially sensitive song that she would have otherwise avoided. She explained that to sing *Strange Fruit* “with integrity” she worked herself into the “emotional state of horror” at the lynchings depicted in the lyrics. Acting provided a means to maintain integrity in performing a song which she said she was “mortified” to sing.

Acting was regarded by some as an undesirable option for vocalists. Ashley described it as the antithesis of the serious jazz musician:

> I refuse to sing *My Way*...I think the moment I start singing *My Way* I’ve crossed over from a serious artist to a Vegas act and a show where it is more about the acting and the putting on the costume and becoming Sinatra. It’s almost into that. You know, you go to NIDA [National Institute of Dramatic Art] and study acting and go down that road to do that. (Ashley)

To Ashley, acting may divert performers from the high road of being a “serious artist”. Melissa also considered acting a slightly less favourable option compared to the “importance” of being “real and honest”:

> ...I think [that expressive integrity is] something I’m beginning to think is actually quite important, if you’re going to come across as real and honest. I
suppose you can sing something that you don’t necessarily relate to if you’ve got good acting skills… (Melissa)

Melissa and Ashley’s response to acting suggests that while it may placate the need for integrity in singers, expressing oneself rather than portraying others is of greater value to them as jazz musicians.

Emotions

Discussions of personal representation in singing brought the subject of emotions to the foreground. Interviewees suggested that voice has the ability to communicate emotion more overtly than instrumental sound, regardless of the presence of lyrics. Irene said she expressed emotion in her improvising. Ingrid also described “keep[ing] the same emotional intensity” in her scatting as in the presentation of the head. Sally credited emotion as being a key to her success in improvisation. She gave this description of its positive impact on her performance of ballads:

I do feel like when I scat in Fragile [Sting, 2012] or Somewhere Over the Rainbow [Sher, 1995, pp. 287–288] that the audience is right there with me because it’s an emotional type of scat. There are a lot of sustained notes and ethereal kind of sounds. It’s emotional for me and I really put that into it and I know that they feel that because you can feel the intensity in the room. (Sally)

Several interviewees referred to how lyrics can also stimulate emotion. In particular, they described how feelings can interfere with the physiological functioning of the vocal instrument. Mark recounted one such experience:

I remember an early lesson with Joy Yates. I was having emotional trouble in my life at the time and it was just that boring old song, “You give to me and she gives to you true love, true love”. I must have been going through a love crisis, and I just blubbered. Here I was, a 6 foot bloke, and I just lost it, for some
reason...That’s the trick for the magicians on stage—when you can convey that lyric, somehow not lose it, and then convey that in [sic] someone sitting out there and then make them react...(Mark)

Mark’s description of the magician’s trick suggests singers can deliberately conceal a natural emotional reaction in order to communicate a song without physical interference. He further described a desire to “switch [emotions] off” when performing repertoire “that could get really emotional”.

Sally recalled her own struggle with the effect of emotion on vocal performance:

When I first got in The Idea of North, I would not sing When All is Said and Done [ABBA, 2009]...When I first started singing it in rehearsal I just couldn’t get through it. I would sing the first line and break down and say “I just need a few more weeks on this one” and it just went on and on. I said, “We’ve just got to put this one away for a year and we’ll come back to it”. We did come back to it and now it’s fine and I love it and I know where I can go in the song to be able to perform it on stage without breaking down...You definitely can’t put something on stage if you’re too emotional about it. (Sally)

Like Mark, Sally described a need for disconnection from the emotion of a song on occasion. She referred to knowing “where I can go” to disengage from the emotion deliberately, and to avoid it physically interfering with vocal function. Irene described a similar emotional disconnection required for singing at events such as funerals. She advocated, “You shouldn’t actually be feeling [the lyrics] totally personally or you can’t sing well...”

Exposure

Discussions of emotions highlighted an awareness of personal exposure experienced during vocal performance. Sally described singers being “very vulnerable” when
bringing personal emotions into singing. Exposure was also raised when discussing the physical positioning of the singer on stage without a visible instrument. Kristin revealed experiencing considerable difficulty with it. In her early stages of development, she once asked to sing from back stage while her band played on stage. Ashley also reported feeling “more exposed as a vocalist” and “more naked without an instrument”. Interviewees suggested that an instrument provides a physical barrier that somehow psychologically protects or conceals its player. Singers do not have this barrier, as Libby shared:

I think there is a sense, I think everybody would agree, that singing is more personally risky than playing an instrument. It’s because there’s no instrument between you and your audience. (Libby)

Kristin echoed Libby’s interpretation of the singer’s greater sense of exposure. She added to it an awareness of physicality:

It’s a very vulnerable thing to sing because you don’t have anything. You don’t even have a music stand half the time. It’s just you, which is a bit frightening. Instrumentalists that I know who’ve crossed over and they want to do some singing, they go “I just wish I had my trumpet so I could twiddle the buttons.” You feel that exposing kind of feeling. (Kristin)

Ashley agreed with Kristin that the placement of the voice inside the body generates a heightened awareness of the performer’s body:

If you’ve got an instrument you feel like you’ve got something to hide behind. As a vocalist you don’t. You’ve got nowhere to put your hands...What do you do with them? Do you put one in the pocket? Down by your side?...Whereas, as soon as you’ve got an instrument, you don’t have to worry about these limbs. (Ashley)
The word “hide”, used by Ashley, was also used by Sharny, Andrew, Irene and Nick when discussing how instrumentalists may conceal or protect themselves behind instruments. Nick gave this description: “Instrumentalists, you do get the feeling a lot of the time that they have this licence to hide behind what they’re playing, their physical instrument…”

In contrast, the vocalist does not have this option, as Sharny observed: “I think a vocalist first of all feels more exposed because it’s just coming out of them. They haven’t got a little instrument to hide behind. It’s coming straight out of their mouth.”

Judgement

The feeling of increased personal exposure in singers was accompanied by discussions of a fear of being judged. If a singer’s performance is regarded as a closer representation of the person than an instrumentalist’s performance, then judgement of the performance carries additional implications. It raises the possibility that the quality of a performance is assumed to reflect the quality of a person. The literature review identified a perceived difference between the amount of self judgement that vocalists and instrumentalists experience while improvising (see Appendix A, Perceived Difference 15).

The survey investigated if there is any difference in the frequency in which instrumentalists and vocalists make self judgements of the standard of their performance during improvising. Participants were asked, “How often do you make judgements about how good your solo is while improvising?” Of those who responded (vocalists, n=50; instrumentalists, n=132), 43.9% of instrumentalists (n=58) said they constantly judge their solo during improvising, 25.8% (n=34) reported they frequently judge it, 10.6% (n=14) indicated “half the time”, 14.4% (n=19) selected “sometimes” and 5.3% (n=7) said “never”. In contrast, 32% of vocalists (n=16) said they constantly judge their solo during improvising, 34% (n=17) reported they frequently judge it, 4%
(n=2) indicated “half the time”, 24% (n=12) selected “sometimes” and 6% (n=3) said “never” (see Figure 29).

*Figure 29.* The perceived frequency that jazz musicians make self judgements about how good their solo is while improvising.

Chi square analysis did not find any statistical significance between the frequency of self judgement during improvising and whether the respondents are vocalists or instrumentalists ($\chi^2 (4) = 6.150, p = .188$) (see Appendix O for the contingency table for Figure 29).

While there was no difference in the frequency of self judgement made by singers and instrumentalists, the interviews suggested that singers are judged more personally by others than instrumentalists are judged. For example, Nick observed that giving feedback to singers is “somehow more personal than giving feedback to an instrumentalist”. Mark believed that judgement of singing is more likely to be
interpreted as someone “commenting on you, on your worth as a human being” than the playing of an instrument. He reported that as a result you “sort of take [the comments] on board”. Melissa made a similar observation:

A voice is a part of you as a person; that sound that you’re making. Somehow people find it hard to divorce any judgement that may be made of that sound from a judgement of themselves. That’s probably the case too with instrumentalists but it’s just such more obviously. It’s integrated into your being so it’s much harder to make that clear divide between what’s being judged.

(Melissa)

Some interviewees suggested that the divide which Melissa described is clearer with the physical and visible presence of an instrument. Jacki illustrated the point when discussing how an audience responds to errors in performance:

You play a saxophone and the saxophone plays the wrong note; the key might have just got stuck. You might have just flicked your finger over on the wrong note...Wrong notes from an instrument does tend to be more forgiven rather than wrong notes from a singer...because it’s coming out of our body. (Jacki)

Sally also referred to the option players have, unlike singers, to divert blame to an instrument:

When you’re singing, if people don’t like the sound, they don’t like you, kind of, because it is you...You’re very vulnerable, whereas a lot of instrumentalists can sort of blame their sound on the particular piano or particular saxophone to a certain extent. (Sally)

Similarly, Naomi noted that when improvising vocally, “You are giving yourself, something that is innately you, to an audience and you can’t blame it on an instrument because your instrument is you.” Overall, the judgement of vocal performance was
experienced as being associated more intimately with judgements of the person than instrumental performance.

*Risk*

As indicated in *Chapter 4: Motor Feedback (Utilising Motor Feedback)*, the improvising vocalist’s sense of risk arising from reduced motor feedback features in discussions of personal representation. The more intimate manner of judging singers may contribute to vocalists experiencing a sense of increased personal risk. The literature review revealed there is a perceived difference between the level of risk taken by vocalists and instrumentalists to improvise (see Appendix A, Perceived Difference 16). The survey tested this perception by asking jazz musicians (N=209), “In your experience, which musician takes the greater personal risk by improvising?” The results show 51.2% of respondents (n=107) indicated “vocalists” take greater personal risk by improvising; 20.1% (n=42) selected “instrumentalists”, 20.6% (n=43) chose “neither”, while the remaining 8.1% (n=17) indicated “don’t know”. The results are illustrated in Figure 30 (see Figure 30).

*Figure 30. Survey results showing which musician is perceived to take the greater personal risk by improvising.*

![Survey results showing which musician is perceived to take the greater personal risk by improvising.](image)
Chi square analysis reveals there is no significant relationship between whether the participant was an instrumentalist or vocalist and their response ($\chi^2 (3) = 9.560, p = .023$) (see Appendix O for the contingency table for Figure 30 which shows the division of vocal and instrumental responses). The findings bring to light the universal belief of the surveyed jazz musicians that vocalists personally risk more than instrumentalists when improvising.

The interviews provided support for the perception that vocalists risk more. Sharny and Jacki both credited the “personal” nature of singing with generating the increased sense of risk. Andrew agreed that singing is “a lot more exposing and personal in a way”. Sally also connected an increase in perceived risk with personal representation:

“Risk” would be one of the words I would throw out there for improv. It’s definitely a risk...Maybe because it’s such a personal thing...That’s you that you’re putting out there. (Sally)

One implication of an increased risk in vocal improvising is that it may discourage singers from scatting. Melissa recounted an instance where risk undermined her students’ confidence to try improvising:

At Jazzworx I’ve got three girls there and they’ll come to me and say “they wanted us to improvise over such and such in the class the other day and I just said ‘no, I don’t want to do it’”...Whereas if a guitarist said that they’d just —. Well, they wouldn’t say it. They’d just have a go. Whereas I think [singers are] very scared to just have a go because they don’t want to be seen to be inferior or not good or something like that. I think it’s something that they don’t want to put themselves out there and just have a go at for fear of being ridiculed. (Melissa)

In all, jazz musicians in the survey and the interviews agreed that vocalists appear to take greater personal risk by improvising than instrumentalists. The findings of Chapter
Section Summary: Personal Representation

The findings of the second section of this chapter showed that vocalists’ experience of improvising differs from that of instrumentalists in that vocalists’ performance output is associated more closely with representing their person. A desire for integrity in this representation appears to encourage singers to seek congruency between their personal experiences and their artistic product. The communication of personal emotion to an audience was valued by singers although experiencing the feelings themselves during performance was considered at times to be detrimental to vocal function. Research also revealed that personal representation heightened the singer’s sense of personal exposure and vulnerability. A close association between singing and identity may facilitate the transference of judgements of vocal performance onto judgements of a person. Vocalists reported experiencing a greater sense of risk during improvising, fearing that any errors would be perceived to reflect flaws in their person.

The findings discussed in this section are summarised in Figure 31 (see Figure 31). The figure illustrates the contribution that personal representation makes to distinguishing the singer’s experience of improvising from the instrumentalist’s.
Figure 31. Summary of findings on how personal representation differentiates singers.

- Voice viewed as personally representing its user
- Integrity in representation is prioritised
- Sense of increased personal risk
- Managing the communication and experience of emotions
- Performance may be judged as a reflection of a person
- Sense of increased personal exposure

How personal representation differentiates singers

EMBODIMENT
A Performer–audience Relationship Expectation

The Difference of a Performer–audience Relationship Expectation

The embodiment of the vocal instrument has a third feature that impacts on the experience of vocalists; the expectation of a relationship. A relationship is defined as a connection or an interaction between parties. Findings show there is a greater expectation of a relationship between singers and the audience during performance than between instrumentalists and the audience. In the interviews, Jacki shared her belief that vocalists “have to be relatable” to meet the “need” of the audience. She reported altering her repertoire selection to ensure her audience would “relate” to her. Kristin recalled being urged by a teacher to connect with her audience because they “want to feel like it’s a two way thing”. Andrew said he “connect[ed] more” with audiences as a singer in The Idea of North, than in his earlier career as a trumpeter. Sharny noted that while singers “connect with an audience”, instrumentalists “tend to be more focused on the art and the music”. Sharny’s comments contrast the emphasis on the singer–audience connection, with the lower expectation of interaction between instrumentalists and the audience. Likewise, Melissa observed that vocalists are on the front line “engaging the audience”, yet horn players are “always off in their own little world”. She added:

   A lot of [instrumentalists] don’t tend to feel like they’re putting on a performance as much as I think a singer is basically expected to. It’s all more internal rather than “oh actually there’s like a room full of people here.”
   (Melissa)

The instrumentalists’ prioritisation of art over audience interaction, suggested by Sharny and Melissa, was also considered by Irene:

   A lot of jazz instrumentalists are so much into the art of what they are doing that they forget that audiences are probably a prime reason why they are doing
it...I see a lot of non-singing instrumentalists and they all want gigs but they play like they’re playing in their garage. (Irene)

One explanation offered in the interviews for the expectation of a singer–audience relationship is the mutual capability of speech of both parties. Lyrics provide a direct channel for communicating meaning in jazz between performers and listeners. Ashley gave this account:

As soon as you add lyrics to something, suddenly you’re talking English and it doesn’t matter how complex the melody is. There are words and there’s a story and people can follow that. They can’t necessarily follow all of the lines that jazz musicians play. Singing works as a stepping stone...(Ashley)

To Ashley, lyrics create a bridge which allows the audience to access meaning through jazz singers. Irene agreed that “audiences identify better with singers because they understand what a singer is doing in that they tell a story”. In contrast, without musical training in jazz, she said the audience has “no idea what’s going on” with instrumental music. Similarly, Kristin saw lyrics as an “opportunity to engage with people” because they “understand what you’re saying”.

The strength of the contribution of lyrics to the perceived connection was investigated in the survey, as presented in Chapter 5: Findings on Verbal Capability (Implementing Scat Syllables). It showed that vocalists are perceived to have a stronger connection with audiences than instrumentalists because they sing lyrics (see Figure 24). The interviews provided further support for the result. Melissa described lyrics as “the thing that people actually really relate to more than anything else”. Mark thought their power to be so strong that, “even if you sing it badly, those lyrics can connect with someone.”

Although credited with forging a connection, Libby suggested lyrics may not be the sole reason for a vocalist–audience relationship:
The voice is a special instrument in that everyone has one and of course people are going to relate to a vocalist whether she or he sings words or not...I think that people relate to voices because they all have one. (Libby)

In her reflection, Libby cites the universal ownership of a vocal instrument as fostering a relationship between singers and the audience, regardless of the presence of lyrics. Her comment is congruent with Melissa’s perspective:

A voice is something that everybody has and that skill of playing an instrument is something that few people have so that’s maybe why people can relate to it more. (Melissa)

To Libby and Melissa, the commonality of a vocal tract generates for the audience a unique kinship or identification with singers.

A third possible facilitator of a relationship is the positioning of singers on stage. Melissa believed that the performance of all musicians is “meant to be an exchange with the audience rather than just something that’s happening in a little bubble on the stage”. However, she observed that the exchange is easier for vocalists as they are placed physically at the front of the stage. In contrast, she noted instrumentalists are confined behind their instrument making it “harder to reach out” to the audience.

Michelle and Naomi also suggested the staging of the singer at the front may encourage interaction with an audience. Michelle observed that the singer is the first person most of the audience will notice and the “first opportunity to really connect”. Naomi concurred that the singer’s visual prominence stimulates interaction:

If a singer is in a band they are looked at more than instrumentalists. Also because they look at the audience more, there’s more of that physical dialogue. A drummer is masked by all those drums and a bass player has a bass in front of
him. Because the singer only has a microphone, you are looking at more of them more of the time. (Naomi)

Naomi’s explanation interprets the drums and bass as a visual barrier which segregates the instrumentalist from the audience. Conversely, vocalists are physically unobstructed and free to engage in a “dialogue”. Irene echoed Naomi’s sentiments, contrasting the visual obstruction of instruments with how the forward placement of the singer enhances a personal connection with the audience:

As a singer you’re usually the front person. Everybody’s got their eyes on you. The other instrumentalists sit behind instruments or they sit behind music stands or they sit behind music but you’re basically sending your spirit out, not that instrumentalists are not, but for the singer it is in a very obvious and visible way. (Irene)

The placement of singers at the front of the band may also thrust on them the responsibility of introducing songs to the audience. Kristin suggested this act may further enhance their connection with the audience and encourage the expectation of a relationship ahead of instrumentalists.

Overall the findings of the survey and the interviews show that there are factors that encourage a greater emphasis on the performer–audience relationship for singers than for instrumentalists. The singer’s verbal capability, the universal ownership of the vocal instrument and the singer’s physical placement at the front of the stage encourages the perception that the relationship is more important. Nick gave his own explanation of why he relates to an audience. He said that without a tangible instrument, “there’s nothing really else to do”.

The Experience of the Difference of a Performer–audience Relationship Expectation

The difference of the relationship expectation for singers with an audience generates some specific experiences.
Eye Contact

In the interviews, eye contact between performers and the audience was regarded as an indicator of a relationship. The meeting of eyes suggested acknowledgement and interaction between parties while closed or averted eyes were seen to disconnect communication and detach relationships.

The survey ascertained if there is any difference between the amount of eye contact of vocalists and instrumentalists with the audience in performance. Musicians were asked, “While you are playing/singing in a jazz performance, how frequently do you make eye contact with the audience?” Of those who responded (instrumentalists, n=136; vocalists, n=63), “constantly” was selected by 6.6% of instrumentalists (n=9) and 20.63% of vocalists (n=13); “frequently” was nominated by 28.7% of instrumentalists (n=39) and 58.73% of vocalists (n=37); “half the time” was chosen by 9.6% of instrumentalists (n=13) and 7.94% of vocalists (n=5); “sometimes” was indicated by 47.8% of instrumentalists (n=65) and 11.11% of vocalists (n=7); and, “never” was selected by 7.3% of instrumentalists (n=10) and 1.59% of vocalists (n=1). The results are illustrated in Figure 32 (see Figure 32).
Chi square analysis reveals there is a very highly significant relationship between the perceived frequency of eye contact with the audience during performance and whether the respondent was an instrumentalist or vocalist ($\chi^2 (4) = 39.486, p < .001$) (see Appendix O for the contingency table for Figure 32). The results show that vocalists are perceived to make more frequent eye contact with the audience during performance than instrumentalists make with the audience.

The interviewees contemplated reasons for the greater amount of eye contact of singers. Naomi suggested instrumentalists have less contact because there is no need for it:
Singers are usually looking at the audience... A lot of instrumentalists don’t need to... Most of them look down the whole time and they’re sort of in their own little world that the audience is observing rather than it being a true dialogue. There are some exceptions...but as a whole I would say that instrumentalists are less inclined to engage personally with the audience. (Naomi)

While instrumentalists may not “dialogue” with the audience as Naomi suggested, singers engage readily. Nick regarded eye contact as “appropriate” because he saw singers as storytellers, and storytellers “don’t tell a story just into the ether.” Instead, eye contact from singers acknowledges the audience’s presence and their contribution as listeners in the storytelling experience. In contrast he noted that instrumentalists “tend not to look at their audience when they’re performing”.

Melissa suggested eye contact with an audience may be imposed on singers inadvertently by their positioning on stage. She pointed out that a drummer may choose where to look but “it’s pretty hard [for a singer] not to look at people when you’re standing right in front of them”.

Nick and Kristin both observed that a visible instrument appears to negate the obligation for a player to look at the audience. Nick interpreted it this way:

You do get the feeling a lot of the time that [instrumentalists] have this licence to hide behind what they’re playing, their physical instrument, or meld themselves into one with their instrument so they’re kind of this pseudo human on stage and so they don’t really have to relate in that way, or perform in that way to relate to the audience. (Nick)

Nick’s perspective suggests that playing an instrument grants the performer permission to abstain from relating to the audience. Kristin also felt that, unlike singers, instrumentalists “don’t really have to” look at people. She considered it “not unusual”
for them to not make eye contact in performance. Melissa agreed that instrumentalists are less concerned with eye contact with the audience than singers are concerned. She reflected, “I don’t think they tend to care about making eye contact with people or anything.”

The closing of eyes however was considered by Michelle to be undesirable for vocal performance:

I don’t really want to [close my eyes while scatting]. I certainly don’t want to block off any possible connection. I don’t want to shut down because I can’t stand it when people do that...Just from watching other people and knowing when I feel uncomfortable that they’re sort of blocking us out and we may as well not be there as an audience. I would hate to do that to an audience. (Michelle)

Michelle’s comment demonstrates her prioritisation of the audience connection as symbolised through her wish to maintain eye contact. Likewise, Sally believed generally that closed eyes during any vocal performance should be limited because “there’s a couple of hundred people there”. She described the act as “isolating” and having a “certain level of self indulgence to it”.

*Disrupting the Relationship with Scat*

As discussed previously, lyrics were credited by interviewees with facilitating a singer–audience relationship. Conversely, the replacement of lyrics with scat syllables was seen as disconnecting it. Irene called scatting “a good way of blocking the audience out”. In the survey, Respondent 46 noted the disruption of scat, commenting that a non-jazz audience “find scatting weird, or they wonder if the singer has forgotten the lyrics”. Michelle gave this example of the audience’s disconnection:
[Scat is] quite confronting I think to most people because they go “what’s going on? I don’t understand this. I understand when someone’s singing me a song. Now what are they doing?”…People go, “what the hell’s going on?” (Michelle)

Likewise, Melissa reported that audiences can “really switch off” during scat if they do not understand the jazz genre. Mark and Irene also used the term “switch off” to describe an audience reaction to scat. Libby described the vocalist–audience connection as being partially “lost” unless the audience understands jazz. Sharny referred to “losing” people when she starts to scat.

The relationship with the audience appears important enough for some singers to forgo scatting. Michelle reported that when she observes an audience disconnecting during scat singing she changes back to the lyrics so they “can relate to it more”. Melissa said that she does not scat as frequently in performance as instrumentalists solo because she does not want “to alienate people”. Sharny reported getting an “inner feeling” of when she needs to stop scatting to maintain the audience connection.

Several survey participants agreed with the interviewee’s sentiments. In Question 48 in the survey, three participants reported that they believed vocalists have less opportunities to improvise compared to instrumentalists because scatting is disliked by general audiences. Respondent 10 reported it as this:

People get a little disgruntled by singers scatting because a lot of people don’t understand why we do it. People come to see/hear a singer speak to them/make them feel good. Scatting doesn’t do that for a good majority of people. (Respondent 10)

Both Irene and Sally described scatting as being “self-indulgent,” suggesting that the prioritising of self over the needs of the audience is neglectful and should be done sparingly.
For Jacki, there is evidence she deliberately detaches from her relationship with the audience by closing her eyes when she begins to improvise:

If I try and keep eye contact with [the audience] while I’m scatting it feels a little bit cabaret and maybe less “in the moment”. It’s like “this is my show piece”. Yes. You do tend to become more internalised when you scat and it’s not so much that you want to close your eyes and look like a real musician for a moment but it just takes you to a different place...If you have your eyes closed you’re not distracted by the earrings that lady is wearing or the fact that that man has just got up to go to the toilet or the cappuccino machine is on. You’re just listening to the band feed you things. (Jacki)

It is possible that the closing of eyes during improvising described by Jacki may serve as an indication of a change of priorities from relating to an audience to artistic goals. Further research is recommended to explore how the closing of eyes may assist the vocalist’s experience of improvising and how it affects the expectation of the vocalist–audience relationship.

Section Summary: Performer–audience Relationship Expectation

The findings of the third section of this chapter showed that there is a greater expectation of a relationship between singers and the audience during performance than there is of instrumentalists and the audience. The increased expectation is likely to originate from the shared verbal capability of singers and the audience, their mutual experience of owning and operating a voice, and the physical placement of the singer front, centre and closest to the audience when on stage. Eye contact between vocalists and the audience was identified as an indicator of the relationship, with closed or averted eyes during scatting representing disconnection or detachment. The replacement of lyrics with scat syllables was regarded as disruptive to the performer–audience relationship. The potential for disruption was sufficient to discourage some singers from engaging in improvising.
The findings discussed in this section are summarised in Figure 33 (see Figure 33). The figure illustrates the contribution the performer–audience relationship expectation makes to distinguishing the singer’s experience of improvising from the instrumentalist’s.
Figure 33. Summary of findings on how the performer–audience relationship expectation differentiates singers.
Pedagogical Implications of the Difference of Embodiment

The findings presented in *Chapter 6* have shown that the embodiment of the vocal instrument is a unique attribute of singers that generates some different experiences. The experiences have several implications for jazz education. First, the organic nature of the vocal instrument makes it sensitive to the status of the human body which houses it. The vocal apparatus’ vulnerability to illness, combined with a susceptibility to natural states of the body, produces a unique variability in its structure and function. Additionally, the inbuilt wide variability of vocal timbre and the lack of an external tuning mechanism create room for broad fluctuations in performance to which instruments are not as vulnerable.

From a pedagogical perspective, vocalists may experience two opposing influences as a result of their organic instrument when learning jazz improvisation. On one hand, operating the vocal instrument is seen as a simple, universal human experience that occurs instinctively. In contrast, the broad capacity for fluctuation in the vocal instrument itself destabilises control, contradicting the perceived simplicity of singing. The outcome is the challenging management of an “instrument” where variability is less understood and less forgiven. Little may be done to alter the changeable nature of the organic instrument beyond the general promotion of health care. Accommodation can be made however to educate musicians on the challenges of the unique vocal instrument. In particular, singers can be encouraged to familiarise themselves theoretically and practically with the depth of variation capable in a vocal instrument and how to manage the changes. Pedagogues may model an attitude of grace for inconsistency as singers negotiate the variability, rather than reinforcing an assumption that poor performance is necessarily linked to ineptitude.

The second characteristic of the embodied vocal instrument is the perception that vocal output represents the person who produces it. Singers’ desire to represent themselves with integrity may sensitise them to feelings of increased exposure and
risk, and foster a fear of being judged personally by the audience and other musicians. The physiological response to fear and other emotions may impact negatively on vocal performance, and in turn be interpreted as a weakness of the person. Consequently the ramifications of producing poor vocal output may discourage singers from taking the risk of improvising.

A supportive atmosphere established in a jazz improvisation classroom may embolden singers to risk improvising. By creating a psychologically safe and nurturing environment, the pedagogue may assist voice students to manage the physiological and psychological effects of the fear of poor performance. This may be achieved by training singers to disassociate poor vocal output from judgement of their person. In all, the pedagogue could teach singers to reframe the experience of learning vocal jazz improvisation so that the physiological interference of emotions is reduced, risks are considered acceptable, exposure is not regarded as threatening, and judgement is disassociated from personal representation.

The third characteristic of the embodied vocal instrument is that it encourages an expectation of a relationship between singers and the audience. The expectation has likely arisen from the universal possession of a vocal instrument, the common capability of verbal communication, the physical placement of the singers closest to the audience, and the lack of any physically visible obstruction to which to divert attention. The amount of eye contact between the performers and the audience may be an indicator of a connection or disconnection from a relationship. Challenges arise for vocal performers when negotiating the expectation of a relationship. Scat appears to trigger a disconnection in some audiences and consequently may discourage singers from improvising.

The management of the vocal–audience relationship is a complex matter and is linked inextricably with perceptions of the vocalist’s role in a jazz band. Jazz educators may help singers to design and negotiate their role as jazz performers, and manage the connection when transitioning into and out of vocal improvisation. The manoeuvering
of roles and perceived responsibilities shall be further explored in Chapter 8: Findings on Roles (Less Emphasis on the Role of Improviser). Pertinent to the current chapter however is recognition that the expectation of a relationship between singers and an audience exerts an impact on whether singers engage in improvising. The key to managing this challenge is likely to lie in reconceptualising the singer’s role and managing any transitions in performance that affect the relationship. Further research is recommended into how frequently a sense of responsibility for the relationship discourages singers from deciding to improvise.

Chapter Summary

Chapter 6 has explored embodiment as the third of five primary categories of how improvising jazz vocalists differ significantly from instrumentalists. The side-by-side analysis and discussion of quantitative and qualitative data obtained from the survey and interviews revealed vocalists differ in their experience of an organic instrument, personal representation and the performer–audience relationship expectation. This is summarised in Figure 34 (see Figure 34). The chapter concluded with a discussion of implications for jazz vocal improvisation education and recommendations for further research.
Figure 34. Summary of Chapter 6: Findings on Embodiment.

How improvising jazz vocalists differ from instrumentalists

Motor Feedback

Verbal Capability

Role

Music Learning Experiences

Embodiment
* Organic instrument
* Personal representation
* Performer-audience relationship expectation
This chapter has also illuminated areas of overlap in the thesis between the effect of embodiment and other categories of difference. Table 6 provides a visual summary of the intersections (see Table 6).

*Table 6. Intersection of embodiment with other subcategories of difference.*

<table>
<thead>
<tr>
<th>Embodiment</th>
<th>Motor Feedback</th>
<th>Verbal Capability</th>
<th>Music Learning Experiences</th>
<th>Role</th>
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</thead>
<tbody>
<tr>
<td>The organic instrument</td>
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<tr>
<td>Personal representation</td>
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<tr>
<td>Performer–audience relationship expectation</td>
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- = Findings show a relationship between categories

Together, Figure 34 and Table 6 demonstrate how embodiment contributes to distinguishing vocalists as significantly different from instrumentalists.
Chapter 7: Findings on Music Learning Experiences

The fourth category for exploring how improvising jazz vocalists differ from instrumentalists is music learning experiences. This chapter will examine how the learning experiences of singers diverge from other musicians in three particular areas; familiarity with referents and procedures; approaches to self-directed music practice; and, opportunities to develop improvising skills. Within these three divisions, the discussion will progress from how vocalists differ from instrumentalists to how the difference is experienced by singers. The chapter will conclude by extrapolating pedagogical implications of music learning experiences for vocal jazz improvisation education.

Familiarity with Referents and Procedures

The Difference of Familiarity with Referents and Procedures

As shown in the literature review, referents and procedures are central concepts in writings on improvisation (Berkowitz, 2010; Johnson-Laird, 1987; Pressing, 1984). To recapitulate, referents are musical components in an underlying formal scheme of constraints (such as the time signature and harmonic progression) against which an improviser manoeuvres while generating music. Procedures are strategies (such as using double time or harmonic voice leading) which an improviser may adopt consciously or subconsciously to manoeuvre the constraints. The literature review showed that greater familiarity with referents and procedures is valued for developing jazz musicianship, and is linked to superior improvising.
The literature review identified a perceived difference between the amount of familiarity vocalists and instrumentalists have with musical referents and procedures in jazz improvisation (see Appendix A, Perceived Difference 9). Data from the interviews and survey both support this conjecture. In the interviews, Dan B identified vocalists’ lesser familiarity as a noticeable difference between singers and instrumentalists:

You hear a lot of people singing and they sound beautiful singing melody and then they try and scat and they’ve no idea what they’re doing. That is one of my big criticisms I would say of vocalists who scat. They can sit there and they couldn’t tell you what the chord was that they’re scatting over and they wouldn’t be able to push the notes out or actually outline it when they’re singing it and you can really notice that. (Dan B)

Similarly, Jamie commented that in his teaching experience, instrumentalists have “a higher understanding of harmonic complexities and substitutions and techniques” than singers. Craig noted at the Sydney Conservatorium of Music that vocalists generally commence jazz studies with a “very low threshold of knowledge” which he described as being “considerably lower than the instrumentalists”.

The discrepancy in the knowledge of referents and procedures at university observed by Craig was also noted by Mike at the Australian National University. He attributed the lower standard of first year voice students to them not receiving “the same amount of teaching” as instrumentalists prior to tertiary study. Mike’s explanation replicated the perception noted in the literature review that there is a difference between the amount of music training that vocalists and instrumentalists receive (see Appendix A, Perceived Difference 1). The survey sought to confirm this perception by asking jazz musicians (N=209), “in your experience, which musician has had more music lessons prior to studying jazz as an adult?” The majority of participants (78.5%, n=164) indicated that from their experience, instrumentalists have received more music lessons prior to studying jazz as an adult. In contrast, 1.4% (n=3) thought vocalists had received more, 9.1% (n=19) nominated “neither” and 11% (n=23)
indicated they did not know. The results support the observation in literature that vocalists are perceived to have received less musical training prior to the tertiary study of jazz.

Several interviewees can be cited as examples of vocalists who received less music training in voice than instrumental training. Ashley, Melissa, Michelle and Libby each reported receiving instrumental lessons during childhood yet they did not begin voice lessons until they were adults. Sharny has never had singing lessons but learnt piano from the age of three. Naomi, Sally and Kristin indicated that they began voice lessons at high school but commenced instrumental lessons in primary school. Overall, the interviews supported the perception shown in the survey and the literature review that vocalists have received less training generally than instrumentalists have received on their respective “instruments” prior to tertiary study. This finding may contribute to vocalists having less familiarity generally with referents and procedures. The postulation does not include vocalists who have received substantial instrumental training but limited vocal instruction. Further research is required to explore the effect of this variation on vocalists’ familiarity with referents and procedures.

Another method attributed in literature to developing procedural knowledge is the very act of improvising (Johnson-Laird, 1987). The literature review revealed a perceived difference between the amount of jazz improvising experience vocalists and instrumentalists have prior to tertiary education (see Appendix A, Perceived Difference 4). The survey sought to substantiate this perception by asking jazz musicians (N=209), in their experience, which musician has had more experience improvising jazz prior to studying jazz as an adult. Sixty-six percent (n=138) selected “instrumentalist”, compared to 5.7% (n=12) who indicated “vocalist”. Twelve percent (n=25) selected “neither” and 16.3% (n=34) chose “don’t know”. The results affirm the findings in the literature that vocalists are perceived to have had less experience of jazz improvising prior to adult study.
Support for this perception was also found in the interviews. Melissa and Craig observed that singers entering tertiary study have no prior experience in jazz improvising. Bruce, Mike and Louise each cited the amount of experience as being probably lesser than instrumentalists.

Melissa found when she commenced her jazz degree that she was behind the instrumental students significantly in improvising. She reflected, “I knew so little I didn’t even know I was behind.” Naomi and Sally reported that their first notable experience of vocal improvising occurred in the voice lessons they took to prepare for the university entry audition. Libby said her first experience of improvising occurred at her audition for the jazz voice degree at the Western Australian Academy of Performing Arts. She recalled that after singing *All of Me* (Sher, 1988, p. 3), the audition panel asked her to scat on the same piece. In ignorance, Libby responded to the panel, “I don’t know a scat for *All of Me*, but I’ll tell you what, I’ll make one up.”

Literature also attributed the amount of time musicians spend on various jazz activities to increasing their awareness of jazz elements. It showed there is a perceived difference between the amount of time vocalists and instrumentalists spend on musical activities which are likely to increase their familiarity with referents and procedures (see Appendix A, Perceived Difference 13). The survey sought to verify this difference by asking participants how much time they spent over the previous week on varied jazz activities identified in the literature: i.e., learning new jazz repertoire; playing/singing scales; improvising instrumental/scat jazz solos; transcribing jazz; playing/singing jazz patterns or motifs; listening to or watching a recorded jazz performance; imitating an improvised jazz solo; participating in a jazz jam session; rehearsing with a jazz band; practising with pre-recorded backing tracks or computer-generated jazz play along/backing tracks; performing jazz; arranging and/or transposing jazz music; and, attending jazz performances.

Of those who responded (instrumentalists, n= 140; vocalists, n = 64), the percentage of instrumentalists who spent one hour or more on specific musical activities during one
week were as follows: 37.2% (n=52) learning new jazz repertoire; 41.4% (n=58) playing/singing scales; 60% (n=84) improvising instrumental/scat jazz solos; 10% (n=14) transcribing jazz; 26.4% (n=37) playing/singing jazz patterns or motifs; 62.9% (n=88) listening to or watching a recorded jazz performance; 12.9% (n=18) imitating an improvised jazz solo; 16.5% (n=23) participating in a jazz jam session; 52.2% (n=73) rehearsing with a jazz band; 20.7% (n=29) practising with pre-recorded backing tracks or computer-generated jazz play along/backing tracks; 76.4% (n=107) performing jazz; 37.8% (n=53) arranging and/or transposing jazz music; and, 47.9% (n=67) attending jazz performances.

The percentage of singers who spent one hour or more on specific musical activities during one week were as follows: 39% (n=25) learning new jazz repertoire; 34.4% (n=22) playing/singing scales; 31.2% (n=10) improvising instrumental/scat jazz solos; 17.2% (n=11) transcribing jazz; 20.3% (n=13) playing/singing jazz patterns or motifs; 46.9% (n=30) listening to or watching a recorded jazz performance; 15.6% (n=10) imitating an improvised jazz solo; 23.5% (n=15) participating in a jazz jam session; 36% (n=23) rehearsing with a jazz band; 18.8% (n=12) practising with pre-recorded backing tracks or computer-generated jazz play along/backing tracks; 62.5% (n=40) performing jazz; 31.3% (n=20) arranging and/or transposing jazz music; and, 45.3% (n=29) attending jazz performances. The results for this question for instrumentalists and vocalists are illustrated in Figure 35 (see Figure 35).
Figure 35. Percentages of surveyed musicians who spent one hour or more on specific musical activities during one week.

A = learning new jazz repertoire
B = playing/singing scales
C = improvising instrumental/scat jazz solos
D = transcribing jazz
E = playing/singing jazz patterns or motifs
F = listening to or watching a recorded jazz performance
G = imitating an improvised jazz solo
H = participating in a jazz jam session
I = rehearsing with a jazz band
J = practising with pre-recorded or computer-generated jazz play along/backing tracks
K = performing jazz
L = arranging and/or transposing jazz music
M = attending jazz performances

Chapter 7: Findings on Music Learning Experiences
The results show that over one week instrumentalists spent more time than vocalists participating in nine out of the thirteen specified musical activities. These nine activities were playing/singing scales; improvising instrumental/scat jazz solos; playing/singing jazz patterns or motifs; listening to or watching a recorded jazz performance; rehearsing with a jazz band; practising with pre-recorded or computer generated jazz play-a-longs/backing tracks; performing jazz; arranging and/or transposing jazz music; and, attending jazz performances. Vocalists reported spending more time on the remaining four activities: learning new jazz repertoire; transcribing jazz; imitating an improvised jazz solo; and, participating in a jazz jam session. The greater frequency of instrumental participation in the specified jazz activities supports the likelihood that instrumentalists are developing a greater familiarity with jazz referents and procedures than vocalists. Further research is required to substantiate the parameters and effect of the difference of these exploratory findings.

Overall, the findings from the survey and interviews confirm the perception in the literature review that vocalists have lesser familiarity generally with referents and procedures than instrumentalists. Future research may investigate the possible contribution to this difference of fewer voice lessons, fewer experiences of improvising and less time spent acquiring explicit and implicit knowledge through jazz activities.

The Experience of the Difference of Familiarity with Referents and Procedures

The difference in familiarity with referents and procedures between vocalists and instrumentalists generates particular experiences for singers.

Level of Confidence

Sharny, Naomi and Ingrid observed an association between an improviser’s level of familiarity with referents and procedures, and confidence. Sharny described confidence as being “built in from understanding the musical concepts.” Likewise, Ingrid believed that knowledge of the tonality and harmonic progression encouraged
confidence in singers. Naomi concurred and gave an example drawn from her experiences as a university student. She recalled that her fellow vocal students who did not have her extensive music training or perfect pitch had a lower level of confidence:

The aural skills that we learnt were really tricky to apply. Luckily because of my skill set I could do it fairly easily but I saw my singer friends just get completely overwhelmed and feel very inadequate and it added to their sense of fear...(Naomi)

The interview findings suggest that a lesser familiarity with referents and procedures may contribute to a lower confidence level in vocalists when compared to instrumentalists.

**Extent of Jazz Listening**

As shown in the literature review, listening is considered a key experience for increasing familiarity with referents and procedures in developing jazz musicians. *Chapter 5: Verbal Capability (Implementing Scat Syllables)* also noted that the two most popular methods vocalists use to acquire their scat syllable vocabulary are based on listening. Literature showed that there is a perceived difference between the amount of time instrumentalists and vocalists spend listening to jazz (see Appendix A, Perceived Difference 3). The survey sought to verify this perception by asking jazz musicians (N=209) “in your experience, which musician has listened to more jazz prior to studying jazz as an adult?” The results show a dominant perception (48.3%, n=101) that instrumentalists have listened to more jazz prior to studying jazz as an adult. “Neither” was selected by 24.4% of participants (n=51) and 22.5% (n=47) chose “don’t know”. Only 4.8% (n=10) nominated vocalists as having listened to more jazz than instrumentalists. The results are illustrated in Figure 36 (see Figure 36).
Figure 36. Percentages of survey respondents showing which jazz musician they consider has listened to more jazz prior to studying jazz as an adult.

The results verify the observation in the literature that instrumentalists are perceived to have listened to more jazz prior to studying jazz as an adult. This finding is congruent with the results of the survey question reported previously at Figure 35 (see Figure 35) showing instrumentalists spent more time in a week listening to jazz. It illustrated that 62.9% (n=88) of instrumentalists spent one hour or more a week listening to jazz, compared to 46.9% (n=30) of vocalists.

The interviews suggested that the act of listening generates specific experiences for singers. Dan Q, Mike and Jamie each reported that musicians tend to listen primarily to recordings of the instrument they play e.g., pianists listen to pianists, while singers listen to singers. Mike identified a possible negative side effect of this behaviour:

I think [vocalists] are a little bit less familiar with improvisation and, because [of] what they’re generally listening to, have got to hear probably fewer role models… (Mike)
Mike’s comment highlights that the practice of listening to one’s own instrument may result in singers hearing less examples of vocal improvisation. This may be because, unlike for instrumentalists, the ability to improvise is not considered a prerequisite for success in jazz singing. Chapter 8: Findings on Role (Less Emphasis on the Role of Improviser) will substantiate this point.

Dan B also observed a narrowness of vocalists’ listening repertoire. Consequently, he advised his vocal students to listen to horn players such as Charlie Parker or Miles Davis. He explained to singers, “If you want to sound like something different, go and listen to something different.”

Several interviewees described the practice of listening primarily to one’s own instrument as a developmental phase from which musicians mature to listen to a wider variety of jazz performers. Mike thought that the listening repertoire of “good” instrumentalists tends to “broaden that out earlier possibly than vocalists.” Kristin recounted the specific experience during her second year of tertiary music study that prompted her to progress from listening only to vocalists to listening to other musicians:

A student said at a workshop “oh, I really think that you would like Keith Jarrett’s Köln Concert. It’s all improvised.” And that opened up my whole jazz listening. Before that I was like that typical singer. I listened to singers, only singers, and even when the instrumental solo would come on I would sort of switch off...(Kristin)

Kristin’s description of herself as a “typical singer” raises the question of why a narrow repertoire of listening may be considered common for vocalists. Jacki offered the explanation that vocalists by nature may have a predilection to some jazz styles and vocal timbres:
It’s often difficult to get singers interested in listening to hard bop players, Charlie Parker and Coltrane and things like that because it’s not lyrical and it’s not pretty, and they want to be lyrical and pretty. (Jacki)

Ingrid ventured other possible explanations for vocalists’ perceived narrow jazz listening habits, including “simple laziness”, an interest in other musical genres, or vocalists being “not ready” developmentally to expand their listening habits. She ventured an opinion that the motivation to listen broadly may be connected with understanding the “necessity to go back to the roots of jazz and to learn the language”. Just as Kristin experienced a moment of revelation in discovering the Keith Jarrett recording, Ingrid suggested some singers expand their listening repertoire when they “realise that that’s what they need to learn if they are willing to go the distance.”

While listening to jazz was regarded by interviewees as a beneficial activity for jazz musicians, one participant pointed out it can at times be detrimental to vocal performance. Jacki gave this illustration:

The difficult thing for me is my ear is so keen that if I listen to somebody too much it morphs through me. I’ve gone to gigs listening to Dinah Washington and this black woman with attitude and eight ex-husbands has come through. Not even singing the same material she does, just singing other songs but I’ve sung it with the same kind of “oomph” and rasp. And I just go “what is wrong with me today? What’s going on?” It’s the same if I listen to Diana Krall on the way to a gig. I tend to sing everything kind of slow and sleepy. I don’t do it consciously. It just comes through. So it’s really difficult to be effective like that. (Jacki)

It appears for Jacki that the strong imitative capability of the voice combined with its capacity for substantial variation in timbre can create an unwanted side-effect from listening prior to performing. Jacki found her susceptibility to mimicking Dinah
Washington’s “oomph and rasp” and Diana Krall’s “sleepy” style impinged on her ability to be “effective” in her jazz singing. Although the impact of listening may affect the performance of any musician, Jacki’s illustration highlights the power of vocal mimicry and its potential to alter vocal technique substantially and affect performance.

The Experience of Music Theory and Music Literacy

Music theory and music literacy were mentioned frequently by the interviewees during discussions of referents and procedures. Music theory was used in reference to knowledge of musical elements such as pitch, harmony, rhythm, timbre, dynamics, tempo and meter. Music literacy was used to refer to the ability to read and write musical elements in traditional western music notation. Music theory and literacy were connected frequently in discussion and on occasion the terms were used interchangeably. The usage demonstrated a perception of their co-existence, with knowledge of one usually implying knowledge of the other.

The literature review showed a perceived difference between the level of music literacy of vocalists and instrumentalists (see Appendix A, Perceived Difference 8). The interviews provided support for this perception. Louise commented that although there is a range of reading ability across all musicians, there are probably fewer instrumentalists who cannot read music than vocalists. Craig also observed a contrast in the level of knowledge between singers and instrumentalists, describing a recent university intake of vocal students as being “fundamentally good singers and functionally musically illiterate”. Mike reported finding at his university that instrumentalists and vocalists had comparable writing skills however he noticed a tendency for vocalists to have a lower standard of reading.

Like music literacy, knowledge of music theory was also observed by Craig, Sharny and Louise to be generally of a lower standard in vocalists than instrumentalists. Louise commented that at times, vocalists enter her studio “who really have done no theory and are pretty hard pressed to even get their major scales down correctly”.

Chapter 7: Findings on Music Learning Experiences
One explanation offered by the interviewees as to why vocalists’ level of music literacy and theory may be lower than instrumentalists’ is that the knowledge is not as integral to the act of singing. Irene ventured that although it is helpful, vocalists “don’t need it” because they rely primarily on aural skills. She cited herself as an example of a singer who built a successful career without receiving training in literacy or theory. Jacki echoed Irene’s perspective about the vocalist’s lesser need for this knowledge in practice: “An instrumentalist needs the theory to actually get anywhere on their instrument. A singer just has to have hearing.”

Interviewees reported that music teachers can reinforce a different prioritisation of knowledge of literacy and theory for singers and instrumentalists. Libby gave an example:

> When a student learns to play an instrument, sight reading is part and parcel of the process. My piano students learn to read music from day one. But it’s common for singing students to have lessons for years and never be required to read music. No wonder vocalists are behind in their theory and relative pitch by the time they get to university. (Libby)

Libby’s observation is also illustrated in Mark’s experience. When comparing his music training, he described his voice lessons as being “more aural” than his trombone lessons. He noted that sight singing and music reading skills are not a major component in singing lessons.

Melissa interpreted the discrepancy between the level of music theory and literacy required in voice lessons and instrumental lessons as an undesirable double-standard in teaching. She highlighted this contrast in the expectations of music students:

> If you were learning saxophone and you go and learn all your tunes by listening to another player, is that deemed acceptable? Well, I wouldn’t have thought so. Or by going onto YouTube and just learning the song that way, whereas I
have so many singers who do that... If Marilyn [Meier-Kapavale] who is the piano lecturer [at the University of Southern Queensland] had a student who couldn’t actually read the music it would be laughable, wouldn’t it. (Melissa)

The double standard from teachers described by Melissa was experienced personally by Michelle. During her years as a violin student at university, she experienced considerable stress arising from her difficulty with reading music. She recalled “dreading” orchestra rehearsals for fear that her poor skills would be discovered. However once she changed her major study from violin to voice, she explained she was “fine” because aural skills were given greater emphasis by teachers.

The differing emphasis teachers place on music theory and literacy is also evident subtly in the use of language by two interviewees. While discussing the standard of literacy and theory of singers, Louise made this comment:

Within the vocal studio you have some students who’ve studied piano or another instrument who maybe have even had private tuition in theory and aural or they’ve done the AMEB [Australian Music Examinations Board] grades and things and their level of knowledge and understanding of theory is actually quite good... (Louise)

Louise’s comment reveals her experience that a “good” understanding of theory in the vocal studio is obtained through the study of piano or another instrument, tuition in theory and aural, or formalised music exams. It reveals a belief that vocalists acquire this knowledge from external sources rather than in voice lessons themselves. Ingrid’s interview revealed a similar subtle expectation:

A jazz vocal teacher has their work cut out for them if a student comes to them with no theory at all. It’s at this point that a singer would take up keyboard skills concurrently with singing lessons or the voice teacher can teach some basic skills on piano, otherwise a voice lesson becomes a piano lesson. (Ingrid)
Again the perception is evident that deficiencies in knowledge of theory are rectified through instrumental lessons, rather than voice lessons. The nature of this experience will be explored in the following discussion of teaching content.

Teaching Content

As discussed in Chapter 4: Motor Feedback (The Role of Audiation), the singer’s use of audiation for prephonatory tuning and for generating of ideas in improvisation creates a natural emphasis on an ear-based approach to music learning. The approach appears to be reflected in the curriculum content offered by teachers. The literature review showed there is a perceived difference between the content of music training that vocalists and instrumentalists receive (see Appendix A, Perceived Difference 2). This may in turn affect musicians’ familiarity with referents and procedures. The survey investigated the perception by asking jazz musicians (N=209) “In your experience, which musician uses music theory more frequently when learning music?” The majority of respondents (88.5%, n=185) nominated “instrumentalist” compared to 1.9% (n=4) who nominated “vocalist”, 7.7% (n=16) who selected “neither” and 1.9% (n=4) who indicated they did not know. The results show strong support for the perception that vocalists use less music theory than instrumentalists when learning music.

Interview data also supported the perception that there is a difference between the content of vocal and instrumental lessons. In particular, several interviewees observed that voice teachers appear to place lesser emphasis on music theory in singing lessons than instrumental teachers. Jacki observed in her work with secondary school workshops that vocalists were not being taught the same content. Consequently she advised music teachers to train singers in “the same way that the others are.” Dan Q recalled from his student days at university that vocalists were in a segregated class and were not “given the same information” as instrumentalists.
Kristin and Melissa reached a similar conclusion when they compared their experiences of vocal and instrumental lessons. Kristin recalled that her instrumental lessons incorporated “more theory and looking at the harmony”. In contrast, her experience of singing lessons was “like you had to figure that out yourself.” Likewise, Melissa commented that instrumentalists discuss “actual scales and that type of thing and how they relate to chords whereas that probably never happened in any of my voice lessons.”

Naomi’s use of language shows a similar awareness that the content of vocal teaching differs from instrumental lessons. She described her first vocal improvisation teacher, who used a theoretical approach, as being “quite instrumentally minded”. Conversely she contrasted another teacher as using methods that involved “listening and creating”, rather than thinking of chord functions or scale types. Her words imply the second teacher’s approach of “listening” was more “vocally minded”. Again, it depicts a perceived difference in the emphasis in the teaching content of vocal lessons.

The Combined Classroom

The difference of familiarity with referents and procedures between vocalists and instrumentalists creates obstacles in the classroom that combines singers and players. While Michelle and Mike saw the combined classroom as an opportunity to standardise music knowledge and learn from each other, Craig cited fundamental difficulties with communicating lesson content:

Impro[visation] class is fundamentally looking at the cutting edge kind of approaches to improvisation, but you couldn’t possibly do it with the vocal students here because they wouldn’t know what you’re talking about. It would be a waste of their time and the teacher’s too. (Craig)

One option for addressing the imbalance in knowledge, highlighted by Craig, is to offer what he called “remedial work”. To this end, he conducted a separate vocal
improvisation class which “start[ed] from a much lower basic kind of background”. He commented that the instrumentalist’s need for remedial work is “very, very rare”. Efforts to equalise knowledge of referents and procedures appear particularly pertinent in vocal jazz education given the frequency that the combined classroom occurs in tertiary improvisation education. The survey shows that the combined improvisation classroom is a common occurrence in jazz education. Of the vocalists who had received tuition in improvisation (n=35), 57.1% (n=20) received it in a jazz band or jazz combo setting. Forty percent (n=14) indicated they received tuition in a combined vocal and instrumental classroom. Likewise, of the instrumentalists (n=40) who had taught improvisation to vocalists, 55% (n=22) indicated it was in a jazz band or jazz combo setting and 20% (n=8) reported teaching in a combined instrumental and vocal class. These survey results indicate the combined classroom is a common setting for teaching vocal improvisation.

In the interviews, some participants supported integrating vocal and instrumental improvisation classes. Jamie regarded it favourably as vocalists could be “treated the same way as instrumentalists in respect to the content that they learn”. Dan Q also observed that the setting equalises the singer’s exposure to music theory, which otherwise may be compromised in aural-oriented voice lessons. As discussed earlier, an increase in such knowledge may increase a singer’s confidence in improvising. Measures that increase confidence are particularly beneficial given the vocalist’s overall sense of personal vulnerability in improvising, as Chapter 6: Findings on Embodiment (Personal Representation) showed.

While the combined classroom may equalise opportunity to access knowledge of referents and procedures, Jamie and Dan Q acknowledged the vocalist’s lack of visual feedback remains a challenge in application. As Chapter 4: Findings on Motor Feedback (Conceptualising Pitch) showed, the absence of visual feedback increases the difficulty for vocalists to conceptualise and apply musical concepts in absolute pitch. Jacki gave this illustration of her university experience:
The difficulty was that the teacher could say to an instrumentalist “I want you to solo only using the pentatonic scale” and I would have to go home, and I think most singers would be the same, go home and learn the pentatonic scale over every single chord and maybe even write it out so that you actually got that scale into your head. Eventually it becomes second nature but I still can’t tell you what scales I’m singing...If I think about it and I listen back to myself [I can], but I’m not thinking about it at the time. (Jacki)

While the combined improvisation classroom ensured Jacki’s exposure to the concept of the pentatonic scale, application required a different process compared to her instrumental classmates. Libby observed similar difficulties with reduced motor feedback in the combined classroom:

Singers just take too long to pitch things. They can’t go to a note as quickly as an instrumentalist can who can just push the buttons. For a singer to complete an exercise that is set for them in improv[isation] just takes them so much longer than an instrumentalist who can just sight read it, who can look at the notes while they’re playing it. (Libby)

As the literature review has shown, the conscious application of referents and procedures in absolute pitch (such as in the 12 key approach) appears to be a popular pedagogical method. For as long as it is the primary method, the combined classroom is likely to generate unique difficulties for singers.

The pedagogical difficulties of the joint improvisation classroom discourage some educators from teaching vocal improvisation, according to Dan Q:

What happens is that a lot of the time, especially in institutions, course co-ordinators and teachers that are instrumentalists that are running those courses, put it in the too hard basket and go “it’s easier just to deal with the instrumentalists. Look, let’s let the singers just sing the song and they’ll sound
Craig saw differing repertoire as undermining a successful merge. He cited the history of the Sydney Conservatorium of Music as an example:

When the Bachelor’s degree here was first set up in the early 1990s, jazz vocal was available as part of the mainstream of that. Briefly, it didn’t work because the improvisation classes were dealing with different repertoire and that’s the driving factor of how we run the improvisation classes. We look at it from the perspective of each vehicle and what is required to improvise over it. So a lot of the repertoire was unsuitable. *Freedom Jazz Dance* [Sher, 1991, p. 110] is not something you want to try and sing as a vocalist. It’s ridiculous. (Craig)

Craig’s explanation demonstrates that the successful merging of instrumental and vocal students into one improvisation class may be more complex than it appears. In light of the significant differences between vocalists and instrumentalists outlined in this thesis, the successful combined classroom is likely to require curriculum modifications to be effective and equitable for all students.

*Teachers’ Background Training*

The literature review illuminated a perceived difference between the educational background training of teachers who teach jazz to vocalists and instrumentalists (see Appendix A, Perceived Difference 6). Vocal improvisers were seen to be frequently taught either by singers who did not have substantial knowledge of jazz theory or by instrumentalists who did not have substantial training in vocal technique.

Interviewees confirmed the perception that the coupling of knowledge of both vocal technique and jazz theory in a single jazz voice teacher is uncommon. Ingrid observed few teachers “have been able to marry the two at a high level”. Instead, teachers usually have a single specialty. The interviewees gave several examples. Jacki’s jazz
vocal education included lessons from a bass and piano player who did not teach any vocal technique. Similarly, the vocal improvisation classes at the Sydney Conservatorium of Music are taught currently by Craig, who is a bass player. He admitted he does not “sing particularly” but said that he adopted the role because he “know[s] the structure of how music works.” Libby received her instruction in improvisation at university from an instrumental teacher in her fourth year because there were no teachers trained in jazz voice at that time. She said she did not receive any instruction in vocal technique from this teacher.

Kristin’s pursuit of teachers shows a deliberate division in her thinking that recognises separate specialties. While in New York, Kristin sought vocal technique lessons from voice coach Tom Shilling and jazz improvisation lessons from trumpeter Ingrid Jenson. She explained her motivation for the division as this:

> For singing I’d probably rather, and what I have done, is go to people who are good at teaching me about voice...Then for improv[isation] and for composition and just for jazz-ness or practice techniques I’ll go to instrumentalists because they are the ones who seem to be more up with that stuff. (Kristin)

The apparent frequency of which vocalists are taught improvisation by instrumentalists was reflected in the survey results. Instrumentalists were asked, “Have you ever taught a vocalist jazz improvisation?” Of those who responded to the question (n=132), 40 participants (30.3%) indicated they had taught vocalists. This shows that instrumental teachers teaching vocalists to improvise is a moderately common occurrence. Likewise, in the interviews, Bruce, Mike, Jamie and Dan Q each reported that improvisation instruction for vocalists at their institutions was taught in a combined class by an instrumental teacher.

As Chapter 2 showed, jazz vocalists are also often taught by voice teachers with classical training (see Appendix A, Perceived Difference 5). This could be significant in
view of the many changes in technique that vocalists experience when crossing over from classical music to jazz. In the survey, participants (N=209) were asked, in their experience, which musician has greater difficulty crossing over from classical technique to jazz. “Vocalist” was selected by 35.9% of respondents (n=75), while 16.7% (n=35) chose “instrumentalist”, 24.9% (n=52) indicated “neither” and 22.5% (n=47) reported “don’t know”. The results shows participants perceive vocalists may experience a marginally increased level of difficulty in crossing over from classical technique to jazz.

In the interviews, Jacki reported experiencing conflict in technique when a classical voice teacher taught her jazz singing. She found that the classical technique appeared to contradict the “forward placement” and lower register singing required for jazz. Likewise, she regarded the lesson content of “Vaccai and Concone” (classical vocalise) as irrelevant as it did not familiarise her with the referents and procedures of jazz. She gave this illustration:

If you have a teacher who’s trying to straighten out these nuts and bolts by teaching you classical, it takes your focus off what you’re actually trying to do which is learn bebop and learn forward placement and sing in a lower register and sound more like a jazz singer. It’s too conflicting. It’s worthwhile for every singer to do some classical but not in the context of doing a specialist degree that’s focusing on one music. I wouldn’t say to anybody doing a classical degree “Oh, you really need to learn your bebop scales.” It’s ridiculous and it would never be suggested. (Jacki)

Jacki described her experience with the classical voice teacher assigned to teach her jazz as “very frustrating” and “very conflicting”, suggesting the crossover teaching was not a positive experience for her.

As jazz voice teachers, Sharny and Irene both noted that classical voice students do not have the experience or understanding of stylistic elements utilised in jazz singing. Sharny identified feel, phrasing, accenting, falling and scooping as the biggest
Irene cited swing as a crucial element that classical teachers must master to teach jazz voice successfully:

Years and years of auditioning now for the Con [Queensland Conservatorium] I can tell you that so many students come unprepared because a classical teacher has decided because they can pick up a piece of music that says it’s Gershwin, Cole Porter and they are done as jazz pieces, that they can teach people to sing jazz. They can’t... I truly believe you cannot teach swing which is the basis of most jazz styles, unless you can sing it as a voice teacher. If you can’t articulate it, you can’t teach it. (Irene)

To Irene, swing is an essential referent in jazz with which classical voice teachers may not be familiar, and it thus creates conflict when trying to teach jazz voice students.

Naomi observed classical training can also generate obstacles in communication for jazz students. She described her difficulty at university with the classical terminology used in aural classes conflicting with her need to understand jazz:

Our aural classes were combined with the classical school and so we were learning the wrong terminology for jazz. Not the wrong terminology just irrelevant terminology for jazz, so we’d have to translate from the classical language that we were learning in aural back into the jazz language...We needed stuff in our language, you know, iii-vi-ii-V turnaround with a sharp 11 chord...So the aural skills that we learnt were really tricky to apply. (Naomi)

Altogether, the background training of teachers may have some effect on the music learning experiences of vocalists. Students may have difficulty in locating someone who is equally skilled in jazz theory and vocal technique. If they receive training from a teacher who specialises in one area only, the student may experience difficulties or conflicts in the other area that remain unaddressed.
Section Summary: Familiarity with Referents and Procedures

The findings of this section of the chapter showed that vocalists’ lesser familiarity with referents and procedures produces some different experiences for singers compared to those of instrumentalists. Research revealed that vocalists generally have less music training in music theory and literacy which may contribute to a lower level of confidence for the vocal improviser. Interviewees reported vocal teachers may not emphasise this knowledge to students as much as instrumental teachers, with the teaching content presented in an aural-imitative approach ahead of music theory.

Singers were also reported to spend less time engaged in jazz related activities. In particular, listening was identified as a point of contrast, with the vocalist’s listening repertoire having less exposure to jazz improvisation. Strong mimicry skills were described as being capable of interfering with “effective” voice production.

The difference between vocalists and instrumentalists’ familiarity with referents and procedures became evident particularly in the combined jazz improvisation classroom. Some cited the integration of students as being beneficial for equalising access to music theory knowledge. Others described an incompatibility as vocalists had difficulty in applying knowledge conceptualised in absolute pitch.

The background training of jazz improvisation teachers was a notable difference for singers. Generally teachers were either trained in voice but lacked jazz education, or were trained as a jazz instrumentalist but lacked vocal expertise. Additionally, research identified students taught by classical vocal teachers who crossover to teach jazz encountered conflict in their training with jazz style and vocal technique.

The findings discussed in this section are summarised in Figure 37 (see Figure 37). The figure illustrates the contribution familiarity with referents and procedures makes to distinguishing the singer’s experience of improvising from the instrumentalist’s.
Figure 3.7. Summary of findings on how familiarity with referents and procedures differentiates singers.

How familiarity with referents and procedures differentiates singers

- Few teachers trained equally in jazz theory and vocal technique
- Less familiarity creates difficulties in the combined classroom
- Voice teachers place less emphasis on music theory and literacy
- Less familiarity is likely to lower confidence
- Less jazz listening
- Less prior experience with music theory and literacy
- Classical crossover creates difficulties in jazz style and technique
- Generally less familiarity with referents and procedures

MUSIC LEARNING EXPERIENCES
Approaches to Self-directed Music Practice

The Difference of Approaches to Self-directed Music Practice

The second area in which the music learning experiences of vocalists differ from instrumentalists when learning to improvise are their approaches to self-directed music practice. Self-directed music practice is defined as a musician’s self-directed engagement in music making activity, often in non-performance situations, for the purpose of acquiring, improving or maintaining musical proficiency.

The literature review revealed a perceived difference between the vocalist’s and instrumentalist’s approach to individual music practice (see Appendix A, Perceived Difference 10). Data from the interviews supported the perception that vocalists approach self-directed music practice differently from instrumentalists. Ashley observed that the singer’s “practice ethic isn’t as good” as the instrumentalist’s. Naomi reported that she doesn’t “actually know that many vocalists who really commit to a lot of practice”. Mark was critical of vocalists who identified themselves as jazz singers but lacked a commitment to focused practice. He said that such singers spend their practice time “walking around the house singing Stormy Weather” (Sher, 1988, pp. 437–438) rather than “pay[ing] their dues”.

Ashley identified the organic nature of the vocal instrument (as discussed in Chapter 6: Findings on Embodiment—The Organic Instrument) as undermining subtly the vocalist’s appreciation and development of disciplined practice habits. He explained:

You can have weeks where your voice isn’t feeling so good and you might be doing a lot of practice...and then you kind of have a bit of a slack week...You’re feeling great. You haven’t done any practice at all and you walk into your singing lesson and you’re sounding good, just aesthetically and your teacher goes, “Oh! Brilliant.” There’s the confusion. Right there. And you go, “Oh! I didn’t do anything. Oh, I’ll just keep my voice fresh for every week then.” [It is]
very hard for singing teachers to actually give an educated comment on whether a student has practised that week. (Ashley)

Ashley’s illustration connects the vulnerability of voice production to the state of the body with the impact of environmental factors on performance. The capacity for broad variation in vocal timbre compared to the relatively consistent tone of other instruments may make it difficult for voice students and teachers to monitor the effect of practice. Consequently, as Ashley suggests, the benefits of self-directed practice may not be as visible to singers as instrumentalists. This may in turn affect the singer’s valuing of practice.

Both Kristin and Michelle mentioned discussing vocalists’ approach to self-directed music practice with their students. Kristin observed that singers generally “don’t realise that it’s going to take a lot of hard work and consistent work to develop [musical skills].” She added that they are “a little disappointed when you tell them what it’s going to entail”. Michelle described her attempt to teach her students about practice:

That is something I talk to my students about all the time, that you’re in an ensemble and you look at the people around you and you think, “how long has it taken for them to be able to play that? To get the dexterity? To be able to hear it? To have the idea?” It’s taken a shit load of time and a lot of practice. They didn’t wake up one day and could do it. (Michelle)

Michelle and Kristin’s efforts to teach vocalists about practising demonstrates their belief that teachers can adjust their students’ perception of it. To this end, the survey enquired whether vocalists and instrumentalists generally receive a different emphasis in their music lessons regarding practice. Participants (N=209) were asked, “In your experience, which musician has the need for repetitive practice more strongly enforced when learning music?” The results are illustrated in Figure 38 (see Figure 38).
The survey results show the majority of respondents, 56% (n=117), perceived that the need for repetitive practice is more strongly enforced for instrumentalists than for vocalists, while 9.6% (n=20) believed it is more strongly enforced for vocalists than for instrumentalists. “Neither” was selected by 18.2% of respondents (n=38) and 16.2% (n=34) indicated “don’t know”. The results concur with the interview findings that educators may play a role in enforcing the differing attitudes to self-directed music practice, with instrumentalists generally receiving greater emphasis on repetitive practice than vocalists. This finding may have implications in light of the discussion in Chapter 4: Motor Feedback (Utilising Motor Feedback) that drew a connection between repetitive practice and the vocalist’s muscle memory of pitch. It suggests that if vocalists do less repetitive practice they may not gain the full benefit that kinaesthetic feedback offers them in developing motor programs for pitching. Further research is required to substantiate this finding and measure the impact of the effect.
In the interviews, Ashley attributed a different perception of practice by instrumentalists and singers to “culture”. He described instrumentalists as having “a culture of starting from a young age on an instrument and practising every day and building up to that [top level]”. In contrast, he noted that vocalists “can start [singing] any time and learn it just on a whim.” Ashley’s observation is personified in Nick’s story:

I think for me my difficulty in sitting down to practise is actually because I don’t think of myself as a musician because this is not something I plan to do. I was doing an Arts–Asian studies degree in Japanese and linguistics and started having fun with some other musicians and then four years later found I was doing it for a living. (Nick)

As Ashley’s theory suggests, Nick’s attitude to self-directed music practice appears to have been affected by the incidental beginning to his singing career. This finding plus results from the survey and the interviews combine to show that vocalists’ approaches to self-directed music practice differ from other musicians.

The Experience of the Difference of Approaches to Self-directed Music Practice

Vocalists’ experience of self-directed music practice appears to differ from instrumentalists’ in several ways.

The Content of Practice

Several interviewees observed a difference between the content that instrumentalists and vocalists practise. Dan Q commented that vocalists often spend considerable practice time on vocal technique and stagecraft, to the detriment of “working on tunes”. To combat this problem, he allocated time in his combined improvisation class to show vocal students what to practise in a song.
Jamie identified the content of self-directed music practice as a lynchpin for why instrumentalists produce more harmonically effective improvisations than vocalists: “I think the instrumentalists study the progressions, and, in order to get deeply inside the changes, they work on substitution techniques and chord-scale relationships. I just don’t think that’s been a major priority for vocal improvisers in general.”

Sharny also noticed that singers practise in a “different way” from instrumentalists. She observed that instrumentalists practise scales and arpeggios whereas singers appear less certain of what to practise:

[Singers have] just got to stand there and find the music and the notes and everything else in their own body or on their own ear whereas with an instrument, there’s the note, there’s the string, there’s the button, whatever it is. [Singers] get a bit lost as to how to practise so they just sing their songs. (Sharny)

Sharny’s observation that vocalists “just sing their songs” was echoed by Libby. To Libby, the vocal students’ preference for just singing songs undermined their motivation for more detailed practice:

Going back to that idea about “everyone has a voice and everyone can sing, singing is easy, you can just do it by ear”, that contributes to a sense that singers sometimes have of “Oh I don’t need to do that” because “here look I can sing this song and I get a gig. So why do all that hard work when I don’t need to?” (Libby)

Just singing songs was regarded by Libby’s students not only as easy but also as all that was necessary for employment.
The Amount of Practice

Literature identified there is a perceived difference between the amount of time vocalists and instrumentalists spend practising skills for improvising (see Appendix A, Perceived Difference 1 2). As identified previously in the literature, these skills can be acquired in a variety of settings, as listed in Figure 35. In the interviews, Dan B, Nick, Naomi, Jacki, Jamie, Mark and Melissa agreed that vocalists spend less time practising improvising skills. Dan B argued that horn players are “generally” better improvisers than vocalists because they “spend all their life sitting at home working out how to play changes”. Likewise, Michelle considered the instrumentalists in her band at a particular performance to be superior improvisers to herself because, “They practise more.”

Several interviewees offered explanations for why vocalists may not practise improvisation skills as much as instrumentalists. Melissa suggested that vocal teachers may not emphasise it in lessons because some students are “more interested in telling the story” with lyrics. Mark argued that vocalists spend less time because those skills are not “really needed” by the singer. Here, the perception of the singer’s role is implicated as possibly affecting the frequency of improvising and potentially practising improvising. The frequency that vocalists improvise will be examined in Chapter 8: Findings on Role (Less Emphasis on the Role of Improviser).

Naomi ventured that personality type may also affect approaches to self-directed music practice:

I think instrumentalists [generally] tend to be loners, introverts more, who will lock themselves away in a room for seven hours...[Vocalists] tend to learn from each other and with each other. Vocalists tend to socialise together and go and see gigs together and things, and instrumentalists tend to be a bit more fixated, a bit more solitary. (Naomi)
Melissa, Naomi, Jacki and Jamie each attributed the physical limitations of the vocal apparatus to being responsible partially for limiting singers’ practice time. Melissa explained: “With a voice you can’t just sit down for four hours and just do the same thing over and over because you just get really tired...” Similarly, Naomi said practising like instrumentalists seven hours a day is “too taxing” for singers. Jamie identified the same problem:

I know it’s virtually impossible for a vocalist to practise for 8 hours a day whereas saxophone players can do it, not easily, but it is possible, without doing any major damage to their instrument. (Jamie)

The organic nature of the vocal apparatus appears to be a restrictive force on the amount of time singers practise, hence a link can be drawn between practice culture and embodiment, as discussed in Chapter 6: Findings on Embodiment (The Organic Instrument).

**Immediacy**

A sense of musical immediacy was identified in the literature review as a perceived difference between vocalists and instrumentalists (see Appendix A, Perceived Difference 11). The term immediacy was used by Moore (in Grime, 1983, p. 81) to describe the singer’s swift learning of music by listening and imitating as opposed to a slower process of learning music by reading. The vocalist’s ability to mimic quickly may produce feelings of impatience when learning music through theory and literacy.

This research sought to ascertain if immediacy is a distinguishable characteristic in vocalists’ music learning experiences and whether it may affect their approach to practice. The survey began by asking participants to indicate from their experience, which musician uses imitation more frequently when learning music (see Figure 39). Of those who responded (n=204), “vocalist” was nominated as the musician who uses imitation more frequently when learning music by 41.7% of respondents (n=85).
“Instrumentalist” was nominated by 13.2% (n=27), while 30.4% (n=62) selected “neither” and 14.7% (n=30) indicated “don’t know”. The result shows a perception that vocalists are likely to use imitation more frequently when learning music.

Figure 39. Percentages of survey respondents showing which jazz musician they consider uses imitation more frequently when learning music.

The next step was to explore whether the vocalist’s experience of learning by imitating could be connected to an experience of learning quickly. The survey asked vocalists (n=64) if they usually find it quicker to learn a new song by listening and imitating rather than by reading the music. “Yes” was selected by 59.4% of respondents (n=38) compared to 29.7% (n=19) who said “no”. The remaining 10.9% (n=7) indicated they never learn songs by reading music. The results show the majority of vocalists find listening and imitating a faster method of learning music. This opens the possibility that when learning music by imitation, jazz vocalists may experience immediacy and an associated impatience with learning by other methods.

The interviews found support that imitation is a swift method of learning for singers. Irene reported that she only needed to hear a song two or three times to “know it”.
Ingrid indicated that for some songs she does not have to “look at the music because it’s already in there straight away.” Her phrase “in there straight away” implies the song was absorbed quickly through listening. Mike observed in his teaching practice that vocalists, unlike instrumentalists, sometimes did not copy down exercises he wrote on the board. He suggested it may have been because the singers were “just trying to hear it”.

The interviews confirmed that the vocalist’s experience of quickly learning by ear was sometimes accompanied by feelings of impatience. Dan Q, Kristin, Libby, Michelle and Mike all cited impatience in students. Michelle said that most singers she encountered “want a magic pill to be able to do it now” and they “don't have a lot of patience.” Libby reported students who think, “I don’t need to do that because here, look, I can sing this song and I get a gig. So why do all that hard work when I don’t need to?” She further described students with a “look in their eyes” that says, “I don’t have to so why should I?”

Kristin observed immediacy as impacting on vocalists’ practice habits. She noted that because singers have been “using their ear” and “getting away with doing it alright”, they may not have as strong a sense of the benefits of disciplined practice as instrumentalists.

In all, the survey and interviews identified potential for the experience of immediacy, and the associated impatience, to impact on the vocalist’s approach to self-directed music practice. Further investigation is required to confirm its existence, measure its variables and ascertain its impact on vocal practice.

The 12 Key Approach

As discussed in the literature review, the 12 key approach is a common practice strategy used by jazz musicians (Berliner, 1994, p. 82). It involves practising an exercise or song successively through twelve tonalities for the purpose of mastering motor skills
and competency for performing in all keys. The review showed that vocalists deemed the relevance of this practice strategy questionable, given their differing experience of motor feedback and the embodiment of the vocal apparatus (see Appendix A, Perceived Difference 37).

To investigate the perceived relevance, survey participants were asked if it is helpful to their work as jazz instrumentalists or singers to learn the same song in all twelve keys (see Figure 40). Of those who responded (vocalists, n=63; instrumentalists, n=139), the majority of instrumentalists (60.43%, n=84) considered learning a song in 12 keys to be helpful to their work. It was not regarded as helpful by 34.53% of instrumental respondents (n=48), and 5.04% (n=7) selected “don’t know”. In contrast, 17.5% (n=11) of vocalists considered it helpful to their work to learn a song in 12 keys, while 76.2% of vocalists (n=48) did not regard it as helpful, and 6.3% vocalists (n=4) selected “don’t know”.

Figure 40. Jazz musicians’ perceptions of whether learning a song in all 12 keys is helpful to their work.

Chi square analysis shows a very highly significant relationship between whether the survey respondents were instrumentalists or vocalists and whether they considered it helpful to learn a song in 12 keys ($\chi^2 (2) = 35.111, p < .001$) (see Appendix O for the
The interviews explored the perceived relevance of the 12 key approach to vocalists and instrumentalists. Jamie, Andrew, Irene, Sharny and Melissa each acknowledged the specific physical challenges instrumentalists face in performing in 12 keys and thus connected the practice strategy with developing necessary motor skills. Jamie noted that singers do not have the same need:

There are very specific technical barriers on instruments like saxophone or piano. Playing in B is way more difficult on piano than it is to play in C whereas for vocalists doing that it’s not really that much of a change. (Jamie)

Andrew, Mike, Sharny, Melissa and Nick agreed that changing key is comparatively easy for vocalists. Like Jamie’s illustration, Nick said that it is no harder for him to sing *All of Me* (Sher, 1988, p. 3) in D flat than to sing it in C. Naomi concurred that because singers do not have different finger or “larynx” patterns, changing is not challenging. Andrew compared his experiences of changing key as a singer and as an instrumentalist:

Being an a cappella group, if we drop a semitone I’m not going “oh, I need to transpose.” If I was on an instrument and it dropped, I go “Oh geez, I need to transpose down a semitone and think about what key I’m in and the new fingering”. But as a singer it’s like “oh, we’ve dropped. We’ve dropped a semitone.” So aurally now I’m just thinking everything just a little bit lower. (Andrew)

The difference between the perceived relevance of the 12 key approach for instrumentalists and vocalists appears related to whether or not the musician needs to think in absolute pitch while performing. Bruce and Nick concurred that as singers are
less likely to be thinking in absolute pitch (as found in Chapter 4: Findings on Motor Feedback—Conceptualising Pitch), there is, as Nick said, “not all that much point” for singers to use the practice strategy. Melissa also described the exercise as “kind of pointless”. Both Sharny and Naomi saw value in vocalists having theoretical knowledge of 12 tonalities but otherwise considered it irrelevant as a practice strategy. Sharny recommended singers write their songs out in 12 keys “but don’t bother singing it in 12 keys.”

Mark, Nick, Sharny, Melissa, Naomi, Sally, Kristin, Irene, Louise, Jacki and Jamie all associated practising the 12 key approach with difficulties in vocal range. Irene argued that the practice may even be detrimental to vocal technique:

> It’s not useful to make [vocalists] sing over multiple octaves like it is with an instrumentalist because they get into all sorts of tension issues and they start to sing notes that are not completely key centred. It works against them instead of working for them. (Irene)

Overall, the 12 key approach was regarded as beneficial to instrumentalists as a means to master the physical skill of manoeuvering keys, yet irrelevant to singers as they do not have the same motor programming need.

There was however one possible benefit of the 12 key approach for singers, identified by Dan Q. Dan Q saw the method as a means to input the sound of a musical device into the auditory memory of jazz musicians:

> Instrumentalists should be learning all their songs in 12 keys. Why? It’s not just so that they know what the notes are. It’s also knowing what the pitches sound like...What I’ve got out of doing that is more to do with pitch and hearing than what it has got to do with actually learning notes. (Dan Q)
The significance of Dan Q’s reflection will be discussed later in this chapter in pedagogical implications.

Resources for Vocal Improvising

The appropriateness of jazz improvisation educational resources for singers and instrumentalists was identified in the literature review as a perceived difference (see Appendix A, Perceived Difference 7). These resources are defined as products designed for the purpose of educating musicians in jazz improvising and assisting their self-directed music practice. Popular formats are books, software, and audio and video recordings.

The literature suggested resources marketed as “for all musicians” are not, in practice, equally applicable to singers as instrumentalists. The survey, however, did not find support for this perception. Vocalists were asked in their experience, to whom are resources marked suitable "for instrumentalists and vocalists" better suited? Of those who responded (n=48), resources were regarded as suited equally to instrumentalists and vocalists by 39.6% of respondents (n=19), while 27.1% (n=13) found they were better suited to instrumentalists. Resources were regarded as better suited to vocalists by 2.1% of respondents (n=1) and 31.2% (n=15) selected “unable to comment”. The dominant perception in the survey results, that such resources are applicable equally to vocalists and instrumentalists, contradicts the perception in the literature review.

The interviewees revealed a variety of experiences with resources, mimicking the variation in the findings between the literature review and survey. Bruce, Mike and Jamie found that jazz improvisation education resources were applicable equally to vocalists as instrumentalists in the classroom and they did not experience any difficulty in using them with singers. Sally and Mark also considered the resources to be suitable for singer’s personal practice and learning, provided their use was supplemented with listening to vocal recordings.
Other interviewees described a difficulty with the suitability of resources for singers because of keys. In discussing the Aebersold *Jazz Play-a-long* series (1967–2013) and *The New Real Book* series (Sher, 1988, 1991, 1995), Bruce, Naomi and Libby commented on the incompatibility of the keys for vocalists. Michelle also mentioned disliking the fixed keys and tempos of the Aebersold series. She added that modern technology can overcome this problem. Both Libby and Bruce pursued this option in their teaching practices by using the computer program *Band-in-a-Box* (Gannon, 1988–2013) which facilitates easy transposition.

For Ingrid, the experience of working with resources designed for horn players was positive. She did not have any major difficulty translating instrumental exercises into vocal exercises and found the process beneficial. She did report that at times there were challenges to find “better articulation” and “suitable language” to “make it flow better”. However overall, she found overcoming the minor conflict in the compatibility of the resource was a valuable learning experience.

In summary, the suitability of resources for vocal improvisation students did not appear to generate significantly different experiences of difference for singers. While some interview participants did not notice any conflict, those who did, referred only to issues of the appropriateness of the keys or to an acceptable process of adapting the exercises for voice. None of the interviewees observed the differences in using resources for practising improvising impacted significantly on the vocalist’s music learning experience.

**Section Summary: Approaches to Self-directed Music Practice**

The findings of the second section of this chapter showed that approaches to self-directed music practice produces some different experiences for singers compared to those of instrumentalists. These manifested in a different attitude towards practice, attributed by interviewees to the limitations of the organic vocal apparatus and a vocal
culture that does not share the same learning focus or commitment to disciplined, persistent practice as the instrumental culture. Jazz improvisation practice received less attention by singers and practice time was seen to be generally focused more on performing the head of the song rather than targeting harmonic elements. Research found that vocalists may be vulnerable to experiencing difficulties with immediacy which manifest in feelings of impatience with learning theoretical elements due to the swift acquisition of the melody by ear.

One specific discrepancy in music practice that drew attention was the 12 key approach. Although touted as a common and popular practice strategy for instrumentalists, it was regarded by singers as unnecessary, irrelevant to work and difficult due to producing conflicts in vocal range. One interviewee suggested it may have value as a strategy for inputting content into the auditory memory of singers. Education resources used by singers to guide their self-directed practice appeared to be equally accessible and suitable for singers as instrumentalists, with the exception of being in inappropriate vocal keys at times. Their usage did not generate a significant difference in music learning experiences.

The findings regarding this section are summarised in Figure 41 (see Figure 41). The figure illustrates the contribution approaches to self-directed music practice make to distinguishing the singer’s experience of improvising from the instrumentalist’s.
Figure 41. Summary of findings on how approaches to self-directed music practice differentiate singers.

- Different attitude to self-directed music practice
- Focus on different content in self-directed music practice
- 12 key approach regarded irrelevant but may have benefits for auditory memory
- Immediacy may impact on practice habits
- Less time spent in self-directed music practice

**MUSIC LEARNING EXPERIENCES**
Opportunities to Develop Improvising Skills

The Difference of Opportunities to Develop Improvising Skills

The third area distinguishing the music learning experiences of vocalists from instrumentalists is opportunities to develop improvising skills. Literature, discussed in Chapter 2, observed that the learning of jazz improvisation may occur in both formalised education environments such as in tertiary institutions, and informal settings such as jam sessions (Green, 2002; Murphy, 2009; Sloboda, 2005, pp. 251–255). Consequently, both settings were explored during this study.

To begin, the literature review identified a perceived difference between the amount of opportunities for formal jazz education for vocalists and instrumentalists (see Appendix A, Perceived Difference 33). The survey sought to ascertain if there is any difference in the frequency of vocalists and instrumentalists undertaking formal jazz education. Survey participants were asked, “Have you previously or are you currently studying jazz as an adult at a college, university, tertiary course, workshop or with a private music teacher in Australia?” Of those who responded (instrumentalists, n=140; vocalists, n=64), “yes” was selected by 69.3% of instrumental respondents (n=97), while the remaining 30.7% of instrumentalists (n=43) selected “no”. Vocal participants responded in a similar manner. “Yes” was selected by 62.5% of vocal respondents (n=40), and the remaining 37.5% of vocalists (n=24) selected “no”. Chi square analysis shows there is no statistically significant relationship between whether the respondent was a vocalist or instrumentalist and whether they were undertaking or had previously undertaken formalised jazz education in Australia ($\chi^2 (1) = .917, p = .338$) (see Appendix O for the contingency table). The findings suggest that vocalists’ frequency of undertaking jazz education is comparable with other jazz musicians.

In the interviews, Sharny, Mark, Bruce, Mike, Jamie and Dan Q all reported that the opportunity to study jazz and jazz improvisation at their respective tertiary institutions was available equally to vocalists and instrumentalists. Sally ventured that vocalists
may have less learning opportunities than instrumentalists in general but added that the situation is improving. Overall, opportunities for formalised jazz education for vocalists did not appear to differ significantly in the survey or in the observations of the interviews.

Opportunities for music learning experiences in informal settings were also investigated in the study. The literature review showed there is a perceived difference in the amount of performance opportunities at jazz venues for vocalists and instrumentalists, with vocalists reported as having less (see Appendix A, Perceived Difference 31). The difference may be noteworthy in light of literature discussed in Chapter 2. It argued that the act of improvising itself fosters substantial learning, and thus opportunities to perform jazz present opportunities to develop improvising skills. The survey investigated the discrepancy in opportunity by asking jazz musicians, “In your experience, which musician has more access to jazz venues where they can perform?” Of those who responded (n=204), “vocalist” was nominated by 37.8% of respondents (n=77) as having more access to jazz venues, while 29.4% (n=60) selected “instrumentalist”, 24% (n=49) indicated “neither” and 8.8% (n=18) said “don’t know” (see Figure 42). The results indicate that vocalists are perceived by jazz musicians to have more access than instrumentalists to jazz venues where they can perform. This contradicts the perception noted in the literature review that suggested vocalists have less.
Chi square analysis shows there is a very highly significant relationship between the perception of which musician has more access to performing at jazz venues and whether the respondent was an instrumentalist or vocalist ($\chi^2 (3) = 26.120, p < .001$). The breakdown of the responses into instrumental and vocal survey participants is shown in Figure 43 (see Figure 43) (see Appendix O for the contingency table for Figure 43). The percentages of responses from vocalists and instrumentalists to the options of “neither” and “don’t know” were comparable however a disparity is observable in the remaining two categories. “Vocalist” was nominated by 47.1% of instrumental respondents ($n=66$) as having more access to performing at jazz venues, compared to 17.2% of vocal respondents ($n=11$) who believed the same. In contrast, 51.6% of vocal respondents ($n=33$) believed the “instrumentalist” has more access to performing at jazz venues compared to 19.3% of instrumental respondents ($n=27$) who shared the perspective. In essence, the results reveal a trend where the majority of responding vocalists believe that instrumentalists have greater access to performing at jazz venues, while the majority of instrumentalists believe that vocalists do.
The analysis suggests another variable may have affected survey responses to produce such a distinguishable pattern. More research is required to identify the cause of the contrasting perspectives. Overall, the results do not support conclusively the perception identified in the literature that vocalists have less performance opportunities at jazz venues than instrumentalists.

In regards to employment as an opportunity to develop improvising skills, Sharny, Ashley, Mike, Michelle and Dan B all observed that there is a greater demand by employers for singers than for instrumentalists. Sharny expressed it simply as “people want a singer”. Ashley reported that when he began singing he received more offers of work than he had received as a trombone player. He concluded from the experience that being a singer makes a musician “more desirable for an employer”.

The interviewees’ experiences suggest there may be generally more employment opportunity for vocalists, yet the informal learning opportunity of jam sessions was reported as being limited for singers. As discussed in the literature review,
participation in jam sessions is regarded by jazz musicians as a valuable, traditional learning experience. The literature review, however, noted that there is a perceived difference between the amount of jam session opportunities for vocalists and instrumentalists (see Appendix A, Perceived Difference 34). To test this perception, survey participants (N= 209) were asked, “In your experience, which musician has more opportunities to participate in jazz jam sessions?” The “instrumentalist” was nominated by 75.6% of respondents (n=158) as having more opportunities to participate in jazz jam sessions. In contrast, 4.3% (n=9) indicated the “vocalist”, while 14.4% (n=30) said “neither” and 5.7% (n=12) selected “don’t know” (see Figure 44).

Figure 44. Percentages of survey respondents showing which jazz musician they consider has more opportunities to participate in jazz jam sessions.

The results align with the literature review showing that the majority of survey participants regard the instrumentalist as having more opportunities to participate in jazz jam sessions than the vocalist.

The second perceived difference in opportunities in informal learning environments is apprenticeships in jazz ensembles. The literature review found there is a perceived difference between the amount of apprenticeship opportunities for vocalists and
instrumentalists (see Appendix A, Perceived Difference 32). To substantiate this observation, survey participants were asked, “In your experience, which musician has more opportunity to be apprenticed by playing/singing in jazz groups?” Of those who responded (n=204), “instrumentalist” was nominated by 54.9% of respondents (n=112) as having more opportunity to be apprenticed by playing or singing in jazz groups. In contrast, 13.2% (n=27) nominated “vocalist”, while 17.2% (n=35) said “neither” and 14.7% (n=30) selected “don’t know” (see Figure 45). The results show that the majority of respondents perceived that instrumentalists have more opportunities to be apprenticed in jazz ensembles than vocalists.

*Figure 45. Percentages of survey respondents showing which jazz musician they consider has more opportunities to be apprenticed by playing/singing in jazz groups.*

Overall, the findings of the literature review, survey and interviews identified a difference in the perceived frequency of opportunities to develop improvising skills for vocalists and instrumentalists. Vocalists are considered to have more employment opportunities due probably to the desirability of singers by employers. The learning opportunities of jam sessions and jazz apprenticeships for vocalists, however, are perceived as less than for instrumentalists.
The Experience of the Difference of Opportunities to Develop Improvising Skills

The difference of opportunities to develop improvising skills generated some specific experiences for singers.

The Experience of Increased Employment Opportunities for Singers

Some interviewees observed an effect arising from a perceived increase in employment opportunities for singers. Trombone players Mark and Dan B revealed they developed their vocal skills to improve their chance of employment. Mark explained that he realised he was not going to be “getting a call for being a jazz trombone player in Sydney” but as a vocalist he could “actually make a buck”. Dan B reported he began to sing professionally “out of necessity” because he found that trombone was often the first instrument to be “dropped out of a band.”

Dan Q described a similar motivation to Dan B to take up singing. Dan Q was faced with losing his job as a jazz trumpeter when a new manager at his regular performance venue insisted on having a vocalist as the entertainment. He recalled reasoning that, “If I want to keep the gig I’m going to have to sing”. The following week he bought a small amplification system, set up at the venue and “just sang the tunes”.

Mike, Sharny and Michelle observed another experience arising from increased employment opportunities for singers. They noted that singers more commonly book instrumentalists to accompany their performances than instrumentalists book singers for their own performance. Michelle articulated the experience when discussing instrumentalists:

No one ever calls me for a gig. I’m always calling. As a singer, you’re the one booking the band most of the time. I so rarely get called. Except for a big band that I sing with, I’m always booking the band and that’s just the nature of it.

(Michelle)
Sharny concurred with Michelle that the singer usually organises the musicians for a performance.

*The Exclusion of Singers from Opportunities by Instrumentalists*

While discussing how instrumentalists do not contact her, Michelle noted that instrumentalists at times exclude vocalists from performance opportunities. One explanation she offered for the behaviour was that although players may earn more income when working with singers, most instrumentalists prefer to play with other instrumentalists. She distinguished their performances with vocalists as “not the love gigs” but the “bread and butter gigs”. The rejection of singers was attributed by Michelle to the perception that many vocalists are unskilled and make the instrumentalist’s job “doubly hard”.

Responses to the sole qualitative question in the survey added support to the suggestion that vocalists are excluded from opportunities by instrumentalists. Respondent 43 reported that instrumentalists “[do] not create the opportunity for the vocalist to improvise”. Likewise, Respondent 58 explained, “If not performing with my own group, it is assumed that I can’t improvise and the opportunity isn’t made available to me.”

In the interviews, Jacki and Michelle observed that female vocalists may also be discouraged from participating in opportunities by the jazz tradition of playing songs in their “original key”. The original key is the key historically used by instrumentalists when performing standard jazz repertoire. In 1988, Sher Publishing released *The New Real Book* which professed to collate popular jazz standards in their original keys. Musical editor Bob Bauer (in Sher, 1988, p. ii) determined each key by consulting multiple instrumental recordings, the original published sheet music and the most well-known recording of each song. He reported deliberately “ignoring vocal renditions (which are transposed to suit a singer’s range)” (in Sher, 1988, p. ii). Consequently,
many of the tunes are set in the upper register of the female voice with a tessitura that is incongruent with the natural, conversational style associated with jazz singing. This finding is significant in light of the predominance of female singers in the industry. As Jacki observed, “Instrumentalists want to play through The Real Book. They don’t want to be changing keys...” The impact of collating standards into book series that have been adopted internationally has had the effect of reducing the fluidity of the list of jazz standards (Gioia, 2012). As Gioia writes (2012, p. xv), works such as The New Real Book (1988) have “made it difficult for newer songs to enter the standard repertoire”. Furthermore, such books are “required texts” at some universities (Murphy, 2009, p. 175). It is possible that the global accessibility and usage of these books has solidified the association of a set number of standards with specific “instrumental” keys. As Jacki experienced, the practice of performing in the original key presents an obstacle for women wishing to participate in opportunities.

The performance of songs in their original key is considered common practice and essential for participation in jam sessions in the United States, as Michelle reported:

In a jam session situation, it’s an etiquette. You’re not going to go up there and call “Angel Eyes” in B or something like that. You’re going to get up and call a tune that everyone can blow on and it’s in the standard key. I know the etiquette. (Michelle)

It is possible that knowledge of the standard key “that everyone can blow” is not as forthcoming for singers compared to instrumentalists. As explored in Chapter 4: Findings on Motor Feedback (Conceptualising Pitch), singers do not need to conceptualise a song in absolute pitch in order to perform it. Consequently, reinforcement of a song’s standard key may not occur during vocal performance whereas for instrumentalists it is known in order to play the correct button, key or string and reinforced with each performance.
Performing songs in non-standard keys for female vocalists may also alienate instrumentalists and discourage them from participating with singers in jam sessions. Dan B gave this illustration:

You can get up there and there’s fifty thousand saxophone players up there playing nine million choruses...and then the singer comes on. You’re going to find a lot of guys cut out. A lot of the horn players all disappear. You might be left with one horn player. That could be the fault of the horn players maybe not wanting to play something in a vocalist’s key. (Dan B)

Overall, the interviewees perceived a general reluctance of instrumentalists to engage with vocalists in jazz-making opportunities beyond those that provide the desired income.

Experiences of Fewer Opportunities in Jam Sessions

The perception that singers have fewer opportunities to develop improvising skills in informal learning environments is evident in jam sessions. Aside from playing standards in their original key, more overt methods of discouraging singers’ participation were reported in the interviews. University was agreed generally to be a fertile environment for the formation of jam sessions, however Jacki, Sharny and Naomi noted there are fewer opportunities for vocalists. Mark observed an attitude of “you’re not a horn player” from instrumentalists. Irene reported that vocalists are usually “not invited” to participate. Naomi pointed out that jam sessions are usually run by instrumentalists who tend to exclude singers due to a low expectation of singers’ skills and to logistics. She described the logistical obstacle to participation as this:

I think because you can accompany as a jazz instrumentalist and you can’t as a vocalist, you couldn’t just sit up there with the band and be in it and then take
your turn...[W]ith singers, there might be four or five of them there, and do they all have to come up and do a song? (Naomi)

Naomi’s comment highlights a significant difference in the perceived role of the singer from other jazz musicians. With the exception of their participation in vocal ensembles, singers are the only jazz musicians who do not traditionally accompany other musicians during performance. As Sally concurred, “It’s pretty hard for a singer to just mill around and be a part of the comping”. Naomi described singers taking the stage in a jam session as “a bit more of an event” which interrupts the normal flow of a session. It disturbs the perceived democracy of jazz where musicians take equal, individual turns in the spotlight, as described by Max Roach (in Berliner, 1994, p. 417). Naomi gave this example of her experience at one jam session: “It was more like I had one song and I could get up and choose a song to sing and they’d accompany me and then I’d get down again, so it wasn’t so collaborative in nature.” Naomi’s observation of the lack of collaboration with other musicians highlights the alteration in priorities when vocalists sing. Dan B described jam sessions as “taking on a very different dynamic” when singers participate.

A resistance to vocalists participating with instrumentalists in jam sessions was observed by Kristin. She described one jazz venue in Sydney that had the rule “No singers allowed” in jam sessions. Kristin considered the rule to be “pretty backwards”. She explained it was in place to keep out unskilled vocalists who “just want somewhere to sing”. She noted that unfortunately it excluded skilled singers as well. Respondent 133 in the survey offered insight into the effect of unskilled singers on instrumentalists’ attitude in jam sessions:

Musicians get to back some terrible vocalists and it ruins it for the good ones hence [there is] hesitation when a singer sits in and many who scat have no idea what they are doing. Some can still sound good but others do nobody any favours. (Respondent 133)
As this respondent suggests, the poor performance of some vocalists may reinforce a stereotype that vocalists are not knowledgeable musically and cannot contribute appropriately in jam sessions. The so called “chick singer” was cited in the interviews by Sharny, Melissa, Naomi, Irene and Dan B. Sharny defined the stereotype as the female vocal performer “who comes along and doesn’t know her stuff”. Michelle used similar language when she described her experience of fighting the stereotype to prove to instrumentalists “hey, I do know this stuff”. Robert observed a stigma that is attached to singers because they sometimes lack the expertise of instrumentalists. Melissa reported a “lingering prejudice” arising from the perception that “vocalists don’t do as much practice or work as [instrumentalists] do.” Overall the perception of the stereotypical singer may discourage instrumentalists from willingly including vocalists in jam sessions.

The rejection of vocalists based on the stereotype of the unskilled singer was experienced by Michelle at overseas performances. She reported having to combat instrumentalists’ negative attitude when attending jam sessions in New York and Chicago. She recalled when she first sat in that “I just knew that they were going ‘oh God a singer.’” She explained how she overcame their attitude by thinking, “Oh, bugger it. I’m here. I’ve been waiting until 5 o’clock in the morning just like you. I’m going to sing.”

In Australia, Libby adopted a similar strategy of defiance to instrumentalists’ disapproval of her participation in jam sessions. She explained she adopted the approach of “just get in there and stuff ‘em” because she knew she needed to take solos to learn improvising. She said she was not prepared to forfeit the opportunity under their pressure.

Dan B recounted his own strategy for dealing with the instrumentalists’ exclusion of singers. He said he circumvented the problem by first participating in the jam session as an instrumentalist. Demonstrating his musical skill on his trombone became his ticket to acceptance:
[The instrumentalists will] say “come up and have a play” and then you’ll get “do you want to sing one?” So you’re already in, if that makes any sense. You’re already sort of in with the fold. I guess if you’re trying to make it as a horn player, “you’re allowed to sing one now, mate”. (Dan B)

Irene, Mark, Jacki and Ingrid observed that one response of singers to their exclusion from jam sessions is to create new sessions run by singers. The purpose of these sessions is to guarantee vocalists’ opportunity to participate. Ingrid provided an example:

I instigated the “Jazz Singers Jam Night” for that very reason because there weren’t as many [jam sessions for vocalists as instrumentalists]. Singers used to tell me it was such an intimidating affair to roll up to a predominantly instrumental jam. I tried to create a safe-space environment for singers to work with different musicians in front of an audience, in front of a live audience and develop certain skills. (Ingrid)

Libby was also proactive in creating her own jam session opportunity. By coordinating the event, she ensured her participation:

There used to be this jam that started at 1 o’clock in the morning at this place that was called “The Maltings Artists’ Club”. That’s where everybody would go after their gigs, and the jam was from one ‘til five in the morning...I think that was kind of like “my” gig and I would invite people down to jam. (Libby)

The singer-created sessions may account for why the survey showed vocalists spend more hours per week in jazz jam sessions compared to instrumentalists despite being discouraged generally from participating (see Figure 35). It is possible these self-created opportunities compensate for the exclusion.

In all, jam sessions were identified in the research as an area of difference in informal
learning opportunities. Singers were noted to experience covert and overt obstacles to their participation. To combat the exclusion, some adopted a defiant attitude and participated despite the pressure, and/or created their own opportunities to jam.

*Experiences of Reduced Opportunities for Apprenticeship*

Another observable area of reduced learning opportunities in informal settings was identified as apprenticeships. Melissa explained the origin of the difference:

> In other genres, say in a covers band, you could be a backing vocalist and maybe get the chance to sing a few songs as lead for a gig and then just step back again. But in jazz probably not, because you very rarely have more than one singer...It’s either you’re on your own or you’re part of an a cappella harmony group or something but there’s nothing in between, is there? (Melissa)

Melissa’s description of “nothing in between” reflects the absence of the opportunity for vocalists to experience an apprenticeship akin to a third alto saxophone player in a jazz big band. The perception that the vocalist is a featured performer places the singer front and centre on stage, and it does not accommodate a discrete and regular observation of other singers from the backline. In contrast, Melissa and Mark pointed out that it is common to have more than one horn player which allows opportunities for players to listen and learn from others in an informal apprenticeship. Naomi summed up the basic obstacle to a vocal apprenticeship as “you can’t have a vocalist as an accompanying instrument.”

The lack of a jazz vocal apprenticeship experience was considered a notable loss to voice education by Sharny. She explained that singers “don’t get the chance to sort of come up in the ranks. They’ve just got to go out front and sing and that’s that.” Like Melissa’s reference to “nothing in between”, Sharny observed the absence of a “middle ground” in which to learn.
Naomi, Nick and Mark pointed out that some jazz vocal apprenticeship opportunities do exist, although they are not common. Naomi suggested large jazz bands with multiple singers, jazz choirs or jazz vocal groups like *The Manhattan Transfer* may facilitate a jazz vocal apprenticeship experience. Both Nick and Mark cited Emma Pask’s participation in James Morrison’s band as an example. They explained Emma functions as the vocalist for the jazz band. Her performance however is limited usually to a few songs while James Morrison contributes in all as the lead artist. The example does suggest vocalists can participate without being the headline act, however their inability to accompany other musicians or observe other singers from a backline is uncompensated.

Some interviewees described experiences which they considered to be a substitute for a jazz vocal apprenticeship. Ingrid regarded her time as a backing vocalist in a contemporary music band to have been her singing apprenticeship. From this opportunity she reported learning to blend her voice with other singers and to sing harmonies. Jazz repertoire however was not the focus. Likewise, Irene considered her apprenticeship to be her work from a young age with professional musicians in many musical genres. Dan B reported he had “done” a jazz apprenticeship on trombone which he regarded as satisfying the need for a vocal apprenticeship. Naomi saw her tertiary education as her apprenticeship in jazz singing, while Melissa counted the performance opportunities her voice teacher offered. Melissa elaborated:

> Even from the first year that I was with her, she always invited me along to come and sing a few songs with [her pianist] when they were doing gigs. She was almost fostering an apprenticeship type situation there. She’d just give you a chance to actually perform in front of people with a musician. So, I think I had that [apprenticing] a little bit but that may not be very common. (Melissa)

In all, the opportunity for a traditional jazz musician apprenticeship was considered uncommon for singers because jazz bands have usually only one singer. It also
appeared unlikely because voice is not commonly used as an accompanying instrument in jazz unless singers are in a vocal ensemble. The loss of the apprenticeship experience requires further investigation into its impact on developing improvising skills.

**The Effect of Gender Roles on Opportunities**

Findings in the literature suggested that when gender is considered there is a perceived difference in the amount of performance opportunities for vocalists and instrumentalists (see Appendix A, Perceived Difference 35). Several interviewees concurred that the prevalence of singers who are female (as will be substantiated in Chapter 8: Findings on Role—More Emphasis on the Role of Performer) affects the amount of opportunities for jazz performance. Dan B found that being a male singer in what he called a “male dominated industry” gave him an advantage in securing work. Jacki observed that the commonness of male instrumentalists reinforced a divide between instrumentalists and vocalists which she likened to conflict on a sporting field:

> [Jam sessions are] a different playground. And because the singers are usually girls and the instrumentalists are most often guys so it’s a bit of a guys’ club...It is a bit like the guys want to go out and play footy [football] and they want to tackle and then somebody else comes along and says “oh, can we play touch footy?” (Jacki)

The possible existence of a “guys’ club” is consistent with anecdotes from the interviews describing the effect of male social networking in the jazz industry. For example, Ashley recounted how his mateship with Clive Moorehead advanced his jazz education:

> I couldn’t afford to get the lessons so I would just ask [Clive] stuff at gigs...He loves drinking coffee so that’s why I drink coffee. I would sit there in the breaks
and go get a coffee, 13 or 14, and sit there and say, “So Clive, when I’m doing this, when I’m doing that.”...[H]e would sit there and literally just chat to me but I would basically get an hour and a half lesson out of him every month or so just by quizzing him. (Ashley)

Ashley then illustrated how networking with male associates, such as Clive, became central in his development: “You get to a point then you start doing gigs and meeting people and people start telling you ’you need to go and see this person. You need to go and see that person.’”

The fostering of opportunities through social connections in a male dominated industry was reported as being not as successful for women as for men. Louise experienced the limitations while seeking employment in Montreal and Australia. She observed that “if you didn’t run your own ensemble you didn’t get called much to actually work”. She explained the subtle manner of exclusion by gender:

Women [instrumentalists], say in New York, who’ve been there for years and who say that they generate a lot of work for people because they book gigs..., they never get any return calls. And that kind of thing is really covert because you don’t know who else got the call and why you were overlooked. No one ever actually ever says to you “well, I’m not hiring you because you’re a woman” but the phone just doesn’t ring. (Louise)

The interviews also revealed that opportunities to develop improvising skills by having performance opportunities may be affected by physical appearance. Women who did not present in a visually appealing manner were reported to be denied employment. Additionally, male singers were at times denied opportunities because the employer sought a female to “sell” the product. The connection between gender roles and opportunity will be discussed in Chapter 8: Findings on Role (More Emphasis on the Role of Performer).
The survey also investigated if there was any perceived reduction in the frequency of improvisation opportunities for females. Vocal survey participants were asked, “Do you think being female reduces the number of opportunities to improvise?” Of the vocalists who responded (n=48), “no” was selected by 72.9% of respondents (n=35), 10.4% (n=5) selected “yes” while the remaining 16.7% (n=8) indicated they were “unable to comment”. The results show that the dominant perception of vocal respondents was that being female did not reduce opportunities to improvise.

In all, the findings show that gender may not reduce opportunities to improvise directly once employment is gained, however the ability to acquire work may be affected. Further investigation is required to explore this difference and to ascertain its impact on the music learning experiences of vocalists.

Section Summary: Opportunities to Develop Improvising Skills

The findings of the third section of this chapter showed that vocalists and instrumentalists appear to be equally engaged in formalised jazz education. The results regarding whether there is a difference in access to performance venues were inconsistent and require further investigation. Opportunities in other areas for developing improvising skills did reveal some different experiences for singers compared to those of instrumentalists. Research showed that the informal learning experiences offered by jam sessions and apprenticeships are inhibited for singers. The singer’s inability to accompany other musicians in the traditional jazz band, the conventional ratio of one singer per band, and the low expectation of vocalists’ skills may diminish their opportunities. Vocalists may be preferred by employers from venues yet rejected by instrumentalists in a male dominated industry. The findings regarding this section are summarised in Figure 46 (see Figure 46). The figure illustrates the contribution opportunities to develop improvising skills make to distinguishing the singer’s experience of improvising from the instrumentalist’s.
Figure 46. Summary of findings on how opportunities to develop improvising skills differentiates singers.
Pedagogical Implications of the Difference of Music Learning Experiences

The findings presented in Chapter 7 demonstrate that improvising jazz vocalists and instrumentalists have differing music learning experiences in the areas of familiarity with referents and procedures, approaches to self-directed music practice, and opportunities to develop improvising skills. These differences generate implications for vocal jazz improvisation education. To begin, the improvisation classroom that combines vocal students with instrumentalists is likely to encounter a significant difference between the students’ level of familiarity with referents and procedures. Provision of remedial instruction to “catch up” singers, however, may not be a viable compensatory option. Craig explained the problem from his perspective as Chair of Jazz Studies at the Sydney Conservatorium of Music:

Basic musical literacy is a big sticking point for us because it means you can’t hijack the agenda of improvisation class to do remedial musical lessons. We’re not able to offer a remedial program because the University of Sydney’s attitude is, “well, why would you be offering remedial programs at a tertiary level? That’s ridiculous because they should know it already”, which I guess, based on the expectation of having prior learning, is common sense. (Craig)

As Craig points out, remedial instruction is not compatible generally with the expectations of tertiary education hence educators may encounter philosophical obstacles when justifying it as a university subject. Future research may need to quantify the inequality of vocal students’ prior learning experiences at the commencement of tertiary education to establish that compensation is essential if equity in jazz education is to be achieved.

The combined classroom was reported by educators to be both advantageous and disadvantageous for vocal students. The contrasting levels of knowledge of music theory, combined with an emphasis on different repertoire and a disparity in the quantity and quality of motor feedback were seen to produce a significantly different accent in learning for vocalists and instrumentalists. Some regarded it as
fundamentally incompatible in the classroom. Favourable appraisals of the combined improvisation class referred to a welcome opportunity to standardise knowledge, which is relevant given that vocal teachers were observed to utilise jazz theory and literacy less frequently than instrumental teachers. The opportunity for instrumentalists and vocalists to learn from each other was also cited as a strength in combining music students. Chapter 8: Findings on Role (Less Emphasis on the Role of Improviser) will also demonstrate how the combined classroom can support an equal expectation that singers will improvise alongside instrumentalists. It is reported as a key teaching strategy.

Regardless of the pedagogical arguments for or against combining musicians in improvisation classes, the decision may be determined ultimately by economics. Craig explained how tertiary music education sits uncomfortably in the current economic climate:

Universities all around Australia, all around the world at the moment are looking at conservatoria and music departments with a very jaundiced eye because it costs the same to give one to one lessons as it does to give a chemistry lecture to 500 people. We are unfashionably expensive... (Craig)

As a consequence, the combined improvisation class may operate as a financial necessity because it is cheaper than running separate vocal and instrumental classes. If so, accommodation in the curriculum for vocalists’ differences is essential.

The background training of jazz vocal improvisation teachers was also cited as a notable difference. The findings suggest that teachers are likely to be either educated as voice teachers without jazz training, or educated as jazz instrumentalists without voice training. Consequently, vocal students may require supplementary instruction to address either a deficiency in jazz theory knowledge or a deficiency in appropriate vocal technique respectively. In all, it heralds a call for teacher education programs to produce graduates with a high level of understanding in both areas as the future...
In the second area of music learning experiences, differences were identified in the approaches to self-directed music practice regarding the amount of practice and the content that is practised. The findings suggest that vocalists experience an uncertainty of what content to practise and how to apply it. Consequently, educators may wish to prioritise instructing vocalists on appropriate referents and procedures for the harmonic progression of the song being studied. Attention can then be given to how the content, typically conceived in absolute pitch, can be practised by students whose reduced motor feedback creates a fundamental obstacle to application.

The lesser time spent in music practice by vocalists was attributed jointly to a difference in the practice culture perpetuated by voice teachers, and the limitations of the organic vocal apparatus. Educators may attempt to contemporise the culture by prioritising an attitude of commitment, discipline and a valuing of practice time to counterbalance the perception that singing is an inherent gift. Any significant lengthening of practice time may be prevented by the vulnerability of the vocal cords to damage. Melissa however suggested a compromise:

With a voice you can’t just sit down for four hours and just do the same thing over and over because you just get really tired, particularly if your technique is rudimentary. So there are kind of physical reasons for [not practising for four hours in one sitting]. That’s not to say that as a singer you couldn’t sit at the piano and do the same practice hearing the sounds...I think it’s fair enough to say that “yes, a singer can’t actually sing through the same thing over and over for an extended period of time” but you can actually work on it in another way that’s not going to have any effect. (Melissa)

Melissa’s suggestion acknowledges first that the physical limitation of the organic vocal instrument is a fixed difference between voice and instruments, which may alter only marginally with the singer’s level of vocal technique. However, by re-conceptualising
“practice” to include active, repetitive listening to jazz referents and procedures, vocalists can increase a practice session with appropriate content without stressing the vocal folds and associated musculature. Given this thesis’ finding that vocalists commonly use audiation in improvisation, Melissa’s suggestion is likely to be an effective compromise and viable option for extending the singer’s practice time.

The 12 key approach was cited as a specific practice strategy where the experience of vocalists and instrumentalists differ. The instrumentalist’s physical need to master the motor skills for performing in 12 tonalities is not shared by singers. The difference in perceived relevance may generate conflict over the allocation of time in the combined classroom, as Louise illustrated:

We’ve had this discussion at staff meetings about whether blues in 12 keys is actually a viable and constructive thing for vocal students to be doing [with the instrumentalists] and I know that the vocal teachers feel that it isn’t. If we’re going to do an exercise with the blues for the vocalists it should be something else. It should be writing a chorus of solo or working with riffs or doing something else that they will actually use... (Louise)

Although the 12 key approach was regarded on the whole as unnecessary for singers, Dan Q pointed out that it provides the auxiliary benefit of inputting the sound of a musical device into the auditory memory of musicians through repetition. Chapter 4: Findings on Motor Feedback (The Role of Audiation) showed that vocalists use this auditory storehouse as a means of generating ideas in improvisation. The perceived irrelevance of the 12 key approach for singers may eliminate inadvertently a significant process of building automated procedural knowledge in jazz musicians, as shown by Berkowitz (2010, pp. 39–80). Further research is recommended to assess the effect and possible benefits of the 12 key approach in vocal jazz improvisation education.

The identification of immediacy in the vocalist’s experience reveals that the swift learning of music by ear may create feelings of impatience when learning music by
other methods. Vocal students may experience a natural resistance which may undermine subtly their motivation to learn music theory and literacy. Educators may respond by showing vocalists how the skills have genuine, relevant application to the “vocal instrument” which is activated by ear.

The third area of difference in the exploration of music learning experiences is the reduced opportunity to develop improvising skills in informal settings such as apprenticeships and jam sessions. The common employment ratio of one singer per band and the exclusion of solo voice from the role of accompanying appears to generally decrease the opportunities for vocal apprenticeships. Opportunities to participate in jam sessions may be decreased by a reluctance of instrumentalists to include singers and the practice of jamming in keys that are unsuitable stylistically for female voices. These limitations on opportunity are pertinent to vocal improvisation education in view of the argument presented in Chapter 2 that the act of improvising itself is a crucial developmental phase (Berkowitz, 2010, pp. 88–94).

Educational institutions may be able to provide the apprenticeship experience through jazz vocal ensembles which create opportunities for students to observe, absorb and mimic more experienced singers. Educators can also assist in running jam sessions that ensure the active involvement of singers alongside instrumentalists, and minimise a “guys’ club” effect that otherwise may discourage the involvement of female singers.

Chapter Summary

Chapter 7 has explored music learning experiences as the fourth of five primary categories of how improvising jazz vocalists differ significantly from instrumentalists. The side-by-side analysis and discussion of quantitative and qualitative data obtained from the survey and interviews revealed three areas of differentiation; familiarity with referents and procedures, approaches to self-directed music practice and opportunity to develop improvising skills. This is summarised in Figure 47 (see Figure 47). The
chapter concluded with a discussion of implications for jazz vocal improvisation education and recommendations for further research.

Figure 47. Summary of Chapter 7: Findings on Music Learning Experiences.
This chapter has also illuminated areas of overlap in the thesis between the effect of music learning experiences and other categories of differences. Table 7 provides a visual summary of the intersections (see Table 7).

Table 7. Intersection of music learning experiences with other subcategories of difference.

Together, Figure 47 and Table 7 demonstrate how music learning experiences contribute to distinguishing vocalists as significantly different from instrumentalists.
Chapter 8: Findings on Role

The fifth category of findings of this thesis explores how the role of jazz vocalists differs from instrumentalists in regards to improvising. Role refers to the social and musical functions assumed by musicians during performance. This chapter is subdivided into two sections for examining the difference of role; more emphasis on the role of performer, and less emphasis on the role of improviser. In each section, the discussion progresses from how vocalists differ from instrumentalists to how the difference is experienced by singers. The chapter concludes by extrapolating the pedagogical implications of role for vocal jazz improvisation education.

More Emphasis on the Role of Performer

The Difference of More Emphasis on the Role of Performer

Musicians may occupy a variety of social and musical roles in jazz performance. Findings from the research suggest that vocalists experience more emphasis on the role of performer than jazz instrumentalists. In this context, a performer is defined as someone who presents music to an audience. This definition acknowledges that the act engages two parties; the performer and the audience. Jazz musicians may also be depicted as artists. This perspective on their role accents the creation of art (i.e., music) for art’s sake. An example of the jazz artist who creates music regardless of the presence of listeners is evident in Ashley’s description of a “real jazz musician”:

I really do think jazz musicians in particular are their own worst enemy when it comes to promoting the music and building audiences...It’s almost this culture that to be a real jazz musician or a real artist you need to be poor and you need
to have six people in the audience and you’re a struggling artist. It’s almost hand in hand [with] the term. There is a degree of if you’re successful at it that you’ve sold out. Well, yeah. You sell tickets to your concert. That is selling out. (Ashley)

A subtle distinction between a performer and an artist is discernible in Ashley’s illustration of a “real jazz musician”. He draws an association between a “real artist” and a disregard for audience attendance, and then contrasts it with the “selling out” of artistic goals in favour of popular appeal. His illustration mimics the example given by Parsonage, Frost Fadnes and Taylor (2007, p. 305) of how the popular appeal of Louis Armstrong “contradicts the desire to secure the status of jazz as art music”. Ashley demonstrates a juxtaposing of the artist who creates art regardless of the audience and the performer who presents art for an audience. In the latter, the performer acknowledges the presence of people and assumes some responsibility for their experience. It is this consideration of the audience that appears to be emphasised in the singer’s experience of role in the jazz ensemble.

The review of literature found that there is a perceived difference in the emphasis placed on vocalists and instrumentalists to be entertainers (see Appendix A, Perceived Difference 28). Vocalists are often seen as "entertainers" of an audience. This perception was tested in the survey. Jazz musicians were asked, "Which best describes how you see the role of the jazz vocalist?" Of those who responded (n=199), 61.8% of respondents (n=123) selected “artist”, while 32.2% (n=64) chose “entertainer” and the remaining 6% (n=12) indicated “neither entertainer nor artist”. Contrary to the literature review, the survey results show a perception that jazz musicians associate the role of the jazz vocalist more strongly with artist than entertainer.

The results of the survey did not align with the findings of the interviews. Data from the interviews suggested conversely that vocalists are associated more strongly with the role of entertainer than artist. One possible explanation for the incongruence between the survey and the interview findings is that the wording of the survey
question introduced a variable which impacted on responses. Describing the singer as a jazz vocalist may have encouraged participants to compare their perception of vocalists against vocalists in other musical genres such as popular music or musical theatre. In this context, it is possible that the jazz singer is conceived more frequently as an artist than the vocalist in an alternative genre. This supposition is supported by data from Sally’s interview when she distinguished jazz singers from other vocal genres. She described jazz vocalists as often being “a bit too much artist” and needing to be “a bit more entertainer”. It is possible that the survey question did not elicit a comparison with instrumentalists but rather a comparison with singers of other genres. It is recommended that further research is conducted to investigate the discrepancy.

As indicated, the results of the interviews suggested a stronger association of vocalists with the role of entertainer than instrumentalists. The trend was evident in Andrew’s remarks when he compared his experiences as a trumpeter and a singer:

As an instrumentalist, I was taught more about the music and presenting the music. You could just dress in all black and stand up there and play really great music behind a music stand. But of course in The Idea of North it’s more about performing. The music is very important but there’s the performance element as well. (Andrew)

Andrew’s reflection distinguishes his focus on “the music” as an instrumentalist from the singer’s additional role of “performing”. The instrumentalist may be, as he had commented previously, “more in it for the music than the performance.” Likewise, Naomi distinguished the isolation of the instrumental–artist from the relationship orientation of the vocal–performer. In her words, instrumentalists are “in their own little world that the audience is observing”, whereas vocalists are in “true dialogue”. Ingrid expressed similar sentiments in noting that singers “can so often be performance and lyric and melody oriented as opposed to jazz players who are primarily oriented towards the music as their focus”.
The vocalist’s emphasis on the role of performer was also evident in Jacki’s personal story when she recounted the forces that swayed her to choose to become a singer over an instrumentalist:

My dad was a music teacher so I had the opportunity to learn pretty much any instrument I wanted...but I really just wanted to sing because I was very interested in being on stage and I guess being more of a performer rather than a musician. If I describe myself now, even though I have a degree and I’m legit[imate], I still consider myself a performer, not instead of a musician. I’m a musician as well, but first and foremost I’m a performer. (Jacki)

Like Andrew’s previous illustration, Jacki’s story suggests performing is a prioritised role of singers which is added to the existing agenda of making music.

Discussions by interviewees of performance experience included some references to stagecraft. Stagecraft was described as the skill of organising and presenting performance elements for reception by an audience. Andrew discussed the importance of stagecraft to The Idea of North. He recounted their practice sessions in front of mirrors and “plotting” movement for songs. Robert and Dan Q both observed that stagecraft is prioritised for singers over instrumentalists. Robert offered this reflection:

I think stagecraft is a really important thing for vocalists. It’s different to the instrumentalist. The instrumentalist can be cool and introverted and they can say a couple or words, whereas I think the jazz singer and all singers need to develop stagecraft as an added element of what they do. (Robert)

Robert’s comment shows his perception that stagecraft is considered an “important”, different and necessary addition to the vocalist’s role. Sally offered a perspective as a vocalist who saw herself as being “equally” an artist and entertainer. She noted
however a general imbalance in other jazz singers and advised them to consider the contribution that entertaining makes to career success:

There comes a time in every singer’s life or career where they realise that it’s not enough just to sound good any more, and that there is a whole other world of entertainment out there that needs to be delved into if we’re going to go anywhere with your career…including the stage presence,…what you’re wearing… and being able to talk to an audience…(Sally)

Sally’s illustration contrasts the artistic, personal goal of “sound[ing] good” with the “world of entertainment” where the singer focuses on stage presence, dress, and interacting with the audience. Her inclusion of appearance in her “world of entertainment” brings to the foreground the contribution of visual display to performing. Irene called it a “visual connection” with the audience where the singer’s appearance is regarded as part of the performance.

The findings of the literature review noted that there is a perceived difference in the emphasis placed on visual display in performance for vocalists and instrumentalists. Looking appealing was considered historically to be part of the singer’s function in a jazz band (see Appendix A, Perceived Difference 25). The survey sought to enquire if it is still considered a function today by asking the following: “Historically, one function of the vocalist was to be visually appealing to an audience. In your experience, is it still a function today?” Of those who responded (n=202), 79.2% of participants (n=160) responded “yes”, while 12.9% (n=26) indicated “no” and 7.9% (n=16) selected “don’t know”. The results show the majority of surveyed musicians agreed that being visually appealing to an audience is still a function of vocalists today.

The research also sought to compare directly the amount of emphasis vocalists and instrumentalists place on personal appearance. Survey participants (N=209) were asked, “In your experience, which musician places more emphasis on their personal appearance for a performance?” Of the response options, 86.6% of respondents
(n=181) selected “vocalist”, while 0.5% (n=1) indicated “instrumentalist”, 10% (n=21) said “neither” and 2.9% (n=6) chose “don’t know”. As illustrated in Figure 48, the results show overwhelmingly that the vocalist is perceived to place more emphasis on personal appearance in performance than the instrumentalist (see Figure 48).

Figure 48. Percentages of survey respondents showing which jazz musician they consider places more emphasis on their personal appearance for a performance.

Findings from the interviews concur with the survey results showing that vocalists are perceived to currently place a greater emphasis on their appearance than instrumentalists. Sharny attributed the connection between appearance and the vocalist to the singer–audience relationship: “Singers know they’ve got to connect with an audience and so part of that is what you look like.” Kristin regarded a pleasant personal appearance during performance as a gesture of respect for the audience:

I think that everyone should look on par with the audience or maybe a little nicer. [For] some of these gigs, they are paying good money to see you. I think
Kristin’s example incorporates presenting her appearance in a way that reflects the audiences’ dress for the occasion thus acknowledging their contribution as witnesses of a performance.

In contrast to singers, the interviewees suggested that instrumentalists do not place as much emphasis on their appearance. Sally illustrated the viewpoint:

People expect the singer to dress up and people don’t necessarily expect the band to dress up. They always tell them to dress up because they’re worried they won’t. (Sally)

Melissa observed the difference in the dress code of musicians when she attended Sara Serpa’s concert at the Brisbane Powerhouse in 2010. She said that Sara “looked really lovely” in a “nice outfit” whereas the pianist wore cargo pants, sneakers and a cap. She pointed out that the Powerhouse was not a café yet the pianist chose to wear clothing that did not reflect the status of the venue nor its patrons.

Irene also observed a stark contrast between the attire of instrumentalists and vocalists, particularly at some recent Queensland Conservatorium examinations. She reported that while voice students made an effort to dress well for their performance, the instrumentalists did not:

We got an email around from one of the instrumental teachers who said that a lot of the instrumentalists looked like they’d dropped in for a jam session on the way to the beach. It is so true. (Irene)

Irene explained that as a result, the faculty are considering whether to allocate marks formally to personal presentation. This is to encourage instrumentalists to consider...
their appearance in all performance settings, regardless of whether it is an examination or not.

On the whole, the findings of the survey and interviews show that vocalists are likely to experience more of an emphasis on the role of performer than jazz instrumentalists. This emphasis is manifested by singers who give greater consideration than instrumentalists to the audience’s experience. It is achieved through entertainment, stagecraft and visual display. Further research is recommended to confirm whether the findings of the survey question which associated the jazz vocalist with the role of artist was affected by a comparison with other vocal genres instead of a comparison with instrumentalists.

The Experience of the Difference of More Emphasis on the Role of Performer

The difference in emphasis on the role of performer generated some specific experiences for singers.

The Experience of Visual Display

Several interviewees discussed their experiences arising from the emphasis on visual display as a component of vocal performance. Irene, Sally and Sharny each referred to an awareness of the audience judging their appearance. Irene described singers as being “much more aware of ‘you’ being on display” than instrumentalists. She reported being able to use lip reading to “tell whether the audience is going ‘oo, I don’t like her dress.’”

Sally gave her own account of having her appearance judged in The Idea of North:

We do get a lot of comments on what we wear. People write in and email on our hair and our dresses, for the boys and the girls, so we’re certainly well aware that the audience is judging. When I give workshops on stage
presentation this is one of things that I talk about, that unfortunately in our society we judge the singer as soon as they walk out, before we’ve even heard them sing, on how they look. (Sally)

The singer’s awareness of being on display, as described by Irene and Sally, has impacted on Sharny. She reported experiencing a pressure to dress well at her concerts:

Sometimes my husband has said to me “oh don’t worry. You look great in those jeans and that top.” I’d say, “I couldn’t get up and perform in my jeans.” And that’s just how it is. I feel as if I’d be doing a disservice to my audience because I think the visual is part of the performance whereas instrumentalists do tend to be more focused on the art and the music. (Sharny)

Mark, Ingrid, Libby and Jacki each regarded a pleasing appearance as being capable of assisting the career of singers. Mark speculated that Diana Krall may not have received as many performance opportunities “if she was plain.” Ingrid commented that singers do not have to be “drop dead sexy, gorgeous although that could possibly help their transition to success in many cases”. Libby gave a personal example of how she perceived her appearance affected the offers of work she received:

I was quite overweight when I was in third year [at university] and I went on a bit of health kick about half way through the year and I feel very sure that when I lost weight, that I started getting a whole lot of work. (Libby)

Naomi, Sally and Kristin discussed how singers’ attire may impact negatively on voice production. Sally explained that tight clothing can restrict breathing. Naomi described the difficulty of sustaining long high notes while walking in high heels. Their illustrations demonstrate that presenting the body in a visually appealing manner may at times conflict with preserving optimum vocal function. As discussed in Chapter 6: Findings on Embodiment (The Organic Instrument), the voice is a unique, embodied
instrument. Conflict may occur because the same body is used for dual purposes of producing voice, and as the clothes horse for adornment in visual performance.

As well as the potential for physical discomfort, Sally and Kristin pointed out that the emphasis on visual display can elicit feelings of psychological discomfort. Sally attributed wearing comfortable clothes to “definitely [making] a difference to your confidence”. Kristin gave an example of how her psychological comfort suffered due to her appearance:

...I was doing a gig at a leagues club and I thought “oh well, I think it’ll be okay to wear jeans”...So I wore jeans and all the guys were wearing slacks and jackets. I hadn’t been told. I guess it was just presumed that I was the chick singer so I would get all dolled up and I didn’t. I looked alright but I was wearing jeans and I felt uncomfortable the whole time. (Kristin).

Kristin further reflected on how the discomfort she experienced that night can affect vocal performance:

I was really self conscious and therefore thinking a lot and felt uncomfortable. When you’re making music, the less the better of things that are going to be thoughts coming in because you just want to be present and you want to be listening and you want to watch what is going on in the room. And you want to try and do the best job of that because that should be your focus. If you didn’t wash your hair, and you’re thinking all those things, they are in the way, I think, in the way of me doing a good job. (Kristin)

Kristin’s illustration shows how an emphasis on visual display may impact negatively on vocal performance by distracting singers’ concentration from other valued focuses.

Interviewees suggested that the amount of emphasis on jazz singers’ appearance may vary depending on their gender. Kristin credited the predominance of female singers
with altering the singer’s experience: “Most singers are chicks so they probably think more about what they’re going to wear for far too long whereas a lot of the guys won’t.”

Kristin’s supposition of the lesser emphasis on appearance for male singers is based on two assumptions: 1) there are more female jazz vocalists than male; and 2) the emphasis on appearance is already lesser for men than women regardless of musical performance. The predominance of female singers or the lack of male singers was also cited in the interviews by Louise, Mike and Jamie in their experiences in tertiary jazz education. For example, Jamie could only recall teaching one male jazz vocalist in 15 years, although he added he may have taught others.

Kristin’s first assumption that there are more female jazz vocalists than male is consistent with the literature review which identified there is a perceived association between gender and whether the jazz musician is a vocalist or an instrumentalist (see Appendix A, Perceived Difference 30). The survey investigated this perception by asking participants (N=209) to indicate their gender and whether they considered themselves primarily a vocalist or instrumentalist. Those who considered themselves equally a player and a singer were asked to indicate which skill they developed first. The results showed 28.7% of respondents (n=60) were female and the remaining 71.3% (n=149) were male, with 69.4% (n=145) of all respondents being instrumentalists and 30.6% (n=64) vocalists. Chi square analysis shows there is a very highly significant relationship between gender and whether the respondent was an instrumentalist or vocalist ($\chi^2 (1) = 90.178, p < .001$) (see Appendix O for the contingency table). The survey findings support the literature review and Kristin’s observation that women predominantly fill the role of jazz vocalist.

Kristin’s second assumption was that appearance is generally less important for men than women. In the interviews, Sharny concurred with Kristin that men put less effort into their appearance than women. Naomi, too, supported the interpretation that gender may alter the emphasis on appearance:
I think an audience will forgive an instrumentalist more [for not looking as good on stage as the singer] for two reasons. One is that they are usually male, and the second, I think it’s just convention...In any type of display situation, it seems like men can get away with more casual attire than women can. (Naomi)

Naomi’s comment supports Kristin’s assumption and brings into focus a possible variation between males and females and the emphasis on the singer’s role of visual display. It suggests that sexed physical appearance may alter the strength of the accent experienced by vocal performers, although further investigation is required.

The survey enquired whether the stronger accent on appearance that women appear to experience during performance is universal for female musicians. The question was abstracted from the writings of Green (1997). Survey participants were presented with the following question: “One writer said women will always have their appearance judged when performing. Have you observed this in your experiences as a jazz instrumentalist or singer?” Of those who responded (n=202), 85.1% of respondents (n=172) indicated “yes”, while 11.4% (n=23) selected “no” and 3.5% (n=7) selected “don’t know”. The results show that a clear majority have observed that the appearance of female vocalists and instrumentalists is always judged during performance.

Judgement of the appearance of female singers was seen by Jacki and Mark to impact on performance opportunities. Jacki recounted the story of a vocalist friend who lost employment because she was not presenting “the look”:

Angela is a hippy chick. She [has] bright red hair. She wears different coloured shoes and long flowy skirts and that’s how she’ll turn up to a gig. She’s not going to get a corporate gig dressed like that. She had been rehearsing with a band and she did a couple of gigs with them and then she didn’t get any calls any more. She asked why and they said, “We need you to wear a sequin dress
and some high heels. We don’t think you’re going to really do that.” But that’s the look. It’s all part of the package. (Jacki)

In this instance, the corporate work had a pre-requisite “look” for which this singer was considered unsuitable. In the sole qualitative question in the survey, Respondent 83 summed up the common expectation of employers that singers should “look pretty and sing nicely”.

Mark, too, gave an example of how the visual appeal of female singers can affect employment:

I’ve had discrimination. Well, not discrimination, it’s just they’ve got to make a product and if you’re playing for a bunch businessmen trying to buy BMWs, are they going to be more inclined to buy it because there’s a jazz trombone player up there who can do a bit of scatting or because there’s a luscious blonde with a bit out front? (Mark)

Mark further recounted an incident where he was not hired for a particular singing job because the employer said he “need[ed] someone with tits”. Mark’s experience demonstrates how the connection between gender and the role of visual display may impact on performance opportunities, as noted in Chapter 7: Music Learning Experiences (Opportunities to Develop Improvising Skills).

In all, the findings on visual display as a part of performance can generate some notable experiences for vocalists. These may include an awareness of being judged, an influence on employment opportunities, physical and psychological discomfort, and a variation in the strength of the accent on display produced by gender.
Mark and Kristin noted that the emphasis on the vocalist’s role of performer may be lessened in settings where music supplies “background” entertainment. Mark explained that at these events, which he likened to “polyfilla”, singers can “switch off” from the audience and focus on musical endeavours. In contrast, he said when the audience is “sitting on the edge of their chair” listening attentively, singers need to give performance skills greater attention.

Kristin made a similar observation of the effect of the performance setting on the emphasis to perform. She described feeling a “pressure” to entertain the audience which depended on whether or not they were listening. She contrasted the experience of the inattentive audience that allowed singers to “[get] comfortable” and “make good music”, with the captive audience who required singers to be “up the front having to go, ‘hello, ladies and gentlemen. How are you doing?’”

Several of the interviewees described using specific musical devices intentionally to entertain the audience during attentive performances. Jacki reported performing *Honeysuckle Rose* (Sher, 1991, p. 134) at a quick tempo with a chorus of “very fast scat” to excite the audience. Libby mentioned “chuck[ing] a couple of high notes in” to elicit a “shout and scream” from the crowd. Likewise, Sally recounted using her vocal range to entertain listeners:

A lot of the time when I’m doing *Somewhere Over the Rainbow* [Sher, 1995, pp. 287–288] or *Fragile* [Sting, 2012] I just want to show people the good parts of my voice, and you can look at that as being a little bit gimmicky but hey, I’m in the entertainment business. If singing high fits with the emotion, then it’s great ’cause it’s also a bit of an entertainment thing because they go, “wow, she’s high. I haven’t heard someone do that really before.” It keeps their attention. (Sally)
Combined, the illustrations show that the performance setting can impact on the singer’s priority to engage with the audience.

*Pleasing the Audience, Displeasing the Instrumentalists*

The vocalist’s priority to perform and connect with the audience was reported to cause displeasure for instrumental musicians at times. Jacki recalled one occasion where her decision to choose repertoire that would please her audience alienated her from the drummer in the band:

> I did a last minute gig once...I rocked up and I only knew one of the players in the band. The others I hadn’t met before so I didn’t know what they were like but I knew the venue. I’d been playing there for four years. I knew what repertoire they liked to hear in that audience. So I turned around and said “okay, let’s just kick off with Route 66 in C”. And the drummer just goes, “Oh God, we’re going to be playing blues and singer shit all night, are we?”

Jacki’s experience illuminates a conflict between the drummer’s prioritisation of personal musical tastes with Jacki’s motivation to entertain the audience. Libby also showed awareness of the conflict:

> I’m not a musical snob and so when I’m on stage I just want to make sure that everybody’s enjoying it and I’m trying to strike a balance between not playing music that’s too moronic for the musicians but playing music that’s accessible for the audience. (Libby)

Libby’s comment alludes to her negotiating the role of entertaining the audience with pleasing the musical interests of the instrumentalists.
Personality and the Performer Versus Artist

Some interviewees suggested that personality may attract musicians naturally to the role of vocalist or instrumentalist. Libby saw the singer’s role as appealing to outgoing personalities:

I’ve noticed over the years that there is something that can be described generally as a singer’s personality, and that singers choose to be singers because they like to be up the front. That’s the reason I did it in the first place. I just wanted to be up the front, everybody looking at me, certainly as a teenager...I don’t know that a trombonist would have that or if they do, then they become a Glenn Miller, somebody who does want to be out the front. (Libby)

Libby’s sentiments were echoed in a comment by Michelle: “I reckon a lot of singers are drawn to singing because of that side of it, the attention.” Michelle’s observation supported Libby’s belief that the extraverted personality is attracted naturally to the role of the singer.

The compatibility of the introverted personality with the role of instrumentalist was noted by Robert, Naomi and Kristin. Robert commented that, “The instrumentalist can be cool and introverted and they can say a couple of words...” Naomi concurred in her reflections:

[Generally] I think instrumentalists tend to be loners, introverts more, who will lock themselves away in a room for seven hours...Vocalists tend to socialise together and go and see gigs together and things, and instrumentalists tend to be a bit more fixated, a bit more solitary...Vocal performance is so scary because it is you that you’re putting out there. There aren’t many introverts who’d choose to do it. (Naomi)
Naomi’s comment shows agreement that extraverted personalities may be attracted naturally to the performance emphasis of the vocalist’s role. Conversely, the comparatively isolated nature of the instrumental role may be more appealing to introverts.

Kristin is an example of what Naomi described as one of the few introverts who chose the role of singer. Kristin recalled her immense struggle early in her career with being positioned at the front of the stage, being required to look at the audience and the pressure to speak to them. She recalled one performance where she asked her band if they could perform onstage while she sang from backstage. In reflecting on the incident, Kristin admitted she did not experience the same discomfort at being on stage when she played saxophone. It suggests Kristin’s introverted personality aligned more comfortably with her role as an instrumentalist than as a vocalist.

The possible connection between introverted and extraverted personality types and whether musicians are primarily instrumentalists or vocalists is evident in the research of Kemp (1981). He argues that introversion is a primary personality trait of performing musicians. He notes that this contradicts previous research that found them to be extraverted. Kemp (1981, p. 10) suggests the discrepancy has occurred because the sample of the first study included members of school choirs, whereas his study sampled instrumentalists. This explanation may be plausible in light of the comments by the interviewees in this thesis. One specific parallel is when Kemp (1981, p. 12) labels the “extended periods of secluded practice” as a withdrawal behaviour of introverts. This same behaviour was commented on by Naomi who said that “instrumentalists tend to be loners, introverts more, who will lock themselves away in a room for seven hours”. Deeper investigation is required to ascertain whether the connection can be extended further between introverts and extraverts, instrumentalists and vocalists, and their emphasis on being an artist or a performer.
Section Summary: More Emphasis on the Role of Performer

The findings of this section of the chapter showed that more emphasis on the role of performer produces some different experiences for singers compared to those of instrumentalists. For singers, the emphasis was seen to promote a consciousness of the audience’s experience and to encourage consideration of their entertainment. Vocalists described an awareness that prioritising the audience’s preferences would at times displease the accompanying musicians. Singers also described prioritising visual display. This could, on occasion, result in physical discomfort during performance and a psychological pressure from being appraised visually. The judgement of visual display was said to influence employment opportunities, with gender creating a variable in the outcome. The emphasis on the role of performer was also reported to be affected by the performance setting. So called “polyfilla” or background gigs were seen to decrease the accent on performing. Personality was identified as a factor which aligned vocalists naturally with the more outgoing facets of their role as a performer. Consequently, musicians with more extraverted personalities appeared more compatible with the singers’ emphasis on performing for an audience. Introverted personalities were reported as suiting the comparative isolation of instrumental artists.

The findings regarding this section are summarised in Figure 49 (see Figure 49). The figure illustrates the contribution more emphasis on the role of performer makes to distinguishing the singer’s experience of improvising from the instrumentalist’s.
Figure 49. Summary of findings on how more emphasis on the role of performer differentiates singers.
Less Emphasis on the Role of Improviser

The Difference of Less Emphasis on the Role of Improviser

The second point of divergence for jazz musicians in their social and musical function addresses the role of improviser. Data from the survey and interviews suggest that vocalists experience less emphasis on the role of improviser in jazz performance compared to instrumentalists. In the context of this thesis (as discussed previously in Chapter 2), the jazz improviser refers to a person who creates in linear time and immediately performs music which has a relationship to pre-existing jazz referents. Traditionally, improvisation occurs in the middle solo section of a jazz arrangement, and often utilises the harmonic framework of a pre-existing composition as a primary referent. Vocalists use scat syllables when fulfilling the function of improvising.

Potential variation in usage of the word “improviser” prompted a survey question to test if references to the “role of improviser” would evoke different connotations for different participants. It raised the possibility that some research participants may perceive improvising to include the interpretation of the head of the song, while others may reserve the term to describe the solo section. Consequently instrumental and vocal survey participants were asked, “Which word do you think best describes the act of making changes to the rhythm or melody of a jazz song during a live performance but keeping the composer’s original tune recognisable to an audience?” Of those who responded (n=204), 82.8% (n=169) selected “interpretation”, while the remaining 17.2% (n=35) chose “improvisation”. Chi square analysis reveals that there is no significant relationship between whether the respondent was an instrumentalist or vocalist and whether they considered the example to be interpretation or improvisation ($\chi^2 (1) = 1.461, p = .227$) (see Appendix O for the contingency table). The results show that the functional definition (that improvisation refers to the solo section rather than the head) was adopted by the majority of participants regardless of whether they were vocalists or instrumentalists. Discrepancies in the usage of the terms was shown as unlikely to distort data hence the forthcoming discussion of...
“improvise” does not invoke qualifications.

The literature review revealed that there is a perceived difference in the emphasis placed on the role of improviser for vocalists and instrumentalists (see Appendix A, Perceived Difference 26), with vocalists less likely to assume the role. The survey sought to test this perception by asking participants (N=209), “In your experience, which musician is more likely to perform the improvised solo in a jazz song?” Of the response options, 95.7% of respondents (n=200) nominated “instrumentalist”, while 1.4% (n=3) selected “vocalist”, 1.9% (n=4) said “neither” and 1% (n=2) indicated “don’t know”. The results are illustrated in Figure 50 (see Figure 50).

Figure 50. Percentages of survey respondents showing which jazz musician they consider is more likely to perform the improvised solo in a jazz song.
The results show a dominant perception that an instrumentalist is more likely to perform the improvised solo in a jazz song. This finding was congruent with a second survey question which asked jazz musicians “Do you improvise instrumental/scat solos in public jazz performances?” Of those who responded (n=199), 97.8% of instrumentalists (n=133) indicated “yes” compared to 81.0% of vocalists (n=51), while 2.2% of instrumentalists (n=3) selected “no” compared to 19.0% of vocalists (n=12). Chi square analysis reveals there is a very highly significant relationship between whether the respondent was an instrumentalist or vocalist and whether they improvise solos in public jazz performances ($\chi^2 (1) = 16.229, p < .001$) (see Appendix O for the contingency table).

The findings of the survey were congruent with the interviews. The interviews further suggested that not only do fewer vocalists improvise, but those who do improvise less frequently in performances compared to instrumentalists. Ashley, Libby and Melissa cited the difference. Sharny remarked that vocalists generally do not improvise and if they do, it is in “every fifth song”. She contrasted this with guitarists who she said solo in “every song”. Libby and Mark concurred that the frequency of their improvising in performances was less than the instrumentalists’ in their bands. Libby reported singing four or five scat solos in a three hour performance. Mark indicated he scats on only two or three songs in a set. Likewise, Kristin said she limited her solos to “a couple per set”.

The survey sought to compare the frequency that instrumentalists and vocalists solo during jazz performance. Participants were asked, “How often do you improvise an instrumental/scat solo in jazz performances?” The response options provided were “constantly”, “frequently”, “half the time”, “sometimes” and “never”. Respondents in this component of the survey (instrumentalists, n=132; vocalists, n=50) had indicated in a preceding question that they improvise solos. Consequently, as expected, no respondents selected “never”. Of the instrumentalists, 46.2% (n=61) said they “constantly” improvise an instrumental solo in jazz performances, while 38.7% (n=51) reported they “frequently” improvise, 8.3% (n=11) indicated they improvise “half the
time”, and 6.8% (n=9) selected “sometimes”. Of the vocalists, 12% (n=6) said they “constantly” improvise a scat solo in jazz performances, while 38% (n=19) reported they “frequently” improvise, 22% (n=11) indicated they improvise “half the time” and 28% (n=14) selected “sometimes”. The results are illustrated in Figure 51 (see Figure 51).

**Figure 51.** The perceived frequency that jazz musicians improvise a solo in jazz performances.

Chi square analysis of the results reveals there is a very highly significant relationship between whether the respondent was an instrumentalist or vocalist and how often they improvise an instrumental/scat solo in jazz performances ($\chi^2 (3) = 30.012, p < .001$) (see Appendix O for the contingency table for Figure 51). Overall, vocal respondents indicated that they improvise solos less frequently than instrumentalists. As flagged in *Chapter 7: Music Learning Experiences (Approaches to Self-directed Music Practice)*, the reduced frequency that vocalists improvise in performance may account in part for the lesser amount of time singers invest in practising improvising skills.
Further investigation is required to measure the parameters of this likely connection.

Several interviewees attributed the lower frequency of vocal improvisation in jazz performance to a belief that improvising is unnecessary for singers. Jacki, for example, noted that, “Generally instrumentalists are conditioned to be improvisers” whereas, “not every singer scats.” Jacki’s statements suggest that the role of improviser may be seen as compulsory for instrumentalists yet optional for singers. Mark echoed her perspective in his comment that instrumentalists improvise because “that’s what you have to do”. For vocalists, however, improvising is described as a choice, as evident in Andrew’s reflection:

> I suppose on the whole I’ve come across more instrumentalists that improvise than singers that improvise because, as a singer, you don’t have to improvise to make it as a singer. (Andrew)

Libby concurred that singers make a decision whether or not to improvise:

> It’s different for every singer, isn’t it, and they choose where they want to fit in the politics of the band and what improvisational role they want to take according to their own taste. (Libby)

In a more subtle manner, the perception was also evident in Jamie’s comments. He described a teaching strategy of “treat[ing vocalists] along the same lines as instrumentalists” yet he listed an outcome of study for singers as being “able to scat if they want.” The phrase “if they want” reveals his view that, regardless of training, scatting remains the singer’s choice in performance. Craig also expressed a perspective that vocal improvising is an optional pursuit. In discussing the jazz course at the Sydney Conservatorium of Music, he explained that he had removed vocalists from the improvisation class. In effect, this action removed improvisation from the singers’ core curriculum. Instead Craig offered a separate, tailor-made class for “vocalists who want
to do it”. Thus the study of improvisation became optional rather than compulsory for vocal students.

Combined, the comments of Jacki, Mark, Andrew, Libby and Jamie suggest that there is less emphasis on the necessity of improvising for singers than for instrumentalists. Dan Q considered the dissimilarity and offered this possible explanation: “I do feel that the instrumentalists primarily fall into that role [of improviser] because that’s just what they do. I feel that the vocalists primarily don’t fall into that role because they can do something else.” The context of his comment showed that “something else” referred to presenting the head of the song with lyrics. His postulation suggests that less emphasis on the role of improviser may exist because vocalists are focusing on another function rather than abstaining consciously from scatting.

Naomi shared Dan Q’s perspective that singers fulfill a different musical function than instrumentalists which results in lessening the emphasis on vocal improvising:

I think vocalists and instrumentalists in jazz usually have a different purpose overall. For example, a singer I think is usually the front man/woman of the band and is responsible for delivering to the audience and connecting with the audience and delivering the song rather than being the most amazing improviser in the world. And the instrumentalist’s role if there is a singer is to accompany that singer really musically and sensitively, and also to take solos that are an impressive diversion from what the vocalist is doing. (Naomi)

The perception of discrete musical functions, as described by Naomi and Dan Q, may contribute to drawing vocalists away from the role of improviser. The difference may stem from the vocalist’s unique verbal capability, as identified in Chapter 5: Findings on Verbal Capability (Relinquishing Lyrics). Craig described the “primary function” of vocalists as presenting the head of a jazz song with lyrics. Conversely, as instrumentalists cannot deliver lyrics, improvising may be regarded as their “primary function”, thereby achieving an equivalent exclusivity to the role. Naomi’s description
of the solo as the instrumentalist’s “star moment” highlights the perceived centrality of improvisation to players.

The perception of a division of duties where improvising is assigned to the instrumentalist’s job list rather than the vocalist’s was supported in the survey. In the sole qualitative question, respondents who believed that being a vocalist reduced the number of opportunities to improvise were asked to explain why. Three of the respondents attributed the jazz tradition to allocating improvising to instrumentalists rather than singers. In this context, Respondent 9 explained that delivering the lyrics is the “primary responsibility of the singer...Then, in order to 'share' the performance, instrumentalists typically take solos.” The response supports the interpretation offered by Naomi and Dan Q that there is a perceived allocation of responsibilities and segregated opportunities to fulfill them. The latter is elaborated on by Respondent 168 who described how vocalists and instrumentalists “take turn[s] to shine” through lyrics and improvised solos respectively. Respondent 39 offered a simple explanation for the division:

If the vocalist sings the melody, then scats, then sings the head again, there's not much for the horn players to do. So solos are 'reserved' for the instrumentalists so they get some air time. (Respondent 39)

The response suggests a perceived a division of labour where the role of improviser is assigned to instrumentalists. If vocalists improvise, they may be regarded as encroaching on the instrumentalist’s assigned duty.

Alongside differing emphases on roles is evidence of differing expectations from the audience and from musicians. Ashley suggested that vocalists improvise less because there is “more of an expectation of jazz musicians to solo on an instrument”. Mark concurred that improvising is “not a big requirement” of singers and there is “definitely no expectation” that they will. He concluded, “That’s why you have the sax player.”
The expectation that instrumentalists are more likely to assume the role of improviser than singers is illustrated in Louise’s observation of arrangements for secondary school jazz bands. She noted that in the scores the solo is always allocated to a saxophonist, trumpeter or pianist. She could not recall ever seeing a chart “that actually called for a scat solo”. Bruce also referred to a de-emphasis of vocal improvising in secondary school jazz bands. He noted that, “There are very few vocalists and all they’ve got to do is sing the head and everybody’s happy.” The observations of Louise and Bruce suggest that secondary education parallels the adult arena where there is a lesser expectation that singers will improvise.

A difference in the expected role of adult jazz musicians was measured in the survey. Participants were asked, “do you think a jazz instrumentalist should be able to improvise a solo if requested during a performance?” Two hundred and two participants responded to the question with 97.5% (n=197) who indicated “yes”, while 2% (n=4) selected “no”, and 0.5% (n=1) said “don’t know”. The results are illustrated in Figure 52 (see Figure 52).

*Figure 52. Percentages of survey respondents showing whether they consider a jazz instrumentalist should be able to improvise a solo if requested during a performance.*
The findings reveal a prevailing expectation of musicians that a jazz instrumentalist should be able to improvise a solo during performance. When the same survey question was posed regarding vocalists, the response from the 202 participants varied. They were asked, “Do you think a jazz vocalist should be able to improvise a scat solo if requested during a performance?” The results show 67.3% of respondents (n=136) said “yes”, while 25.8% (n=52) selected “no”, and 6.9% (n=14) indicated “don’t know”. The results are illustrated in Figure 53 (see Figure 53).

Figure 53. Percentages of survey respondents showing whether they consider a jazz vocalist should be able to improvise a solo if requested during a performance.

The results confirm that a difference in the expectations of roles for instrumentalists and vocalists exists. A comparison shows that fewer jazz musicians agreed that vocalist should be able to improvise a solo (67.3%) than they did regarding instrumentalists (97.5%). There is also a change in the uncertainty of whether vocalists should improvise compared to instrumentalists. When asked whether vocalists should be able to improvise, 6.9% (n=14) indicated “don’t know” compared to 0.5% (n=1) who selected “don’t know” when asked if instrumentalists should be able to improvise.
The perceived difference in whether jazz vocalists or instrumentalists should be able to improvise generates complexities relating to the definition of a jazz singer. As discussed in Chapter 2, the literature evidences a strong connection between the constructs of jazz and improvisation, with the presence of jazz implying the presence of improvising. If singers improvise less frequently than instrumentalists, then there could also be less inclination to classify them as jazz musicians.

The survey tested the perceived connection between improvisation and the identity of the jazz musician by asking participants, “Do you think being able to improvise is part of what makes someone a ‘real jazz musician’?” Of those who responded (n=202), 88.6% (n=179) said “yes”, while 9.9% (n=20) selected “no” and 1.5% (n=3) indicated “don’t know”. The results show that being able to improvise is regarded commonly as an identifying characteristic of a “real jazz musician”.

A closer inspection of the responses shows instrumental participants (n=139) and vocal participants (n=63) differ in the extent of their agreement. In the responses, 94.3% of instrumentalists (n=131) compared to 76.2% (n=48) of vocalists agreed that being able to improvise is part of what makes someone a “real jazz musician”; 4.3% of instrumentalists (n=6) disagreed compared to 22.2% (n=14) of vocalists who held this position; 1.4% of instrumentalists (n=2) and 1.6% of vocalists (n=1) indicated “don’t know”. The results are illustrated in Figure 54 (see Figure 54).
Chi square analysis reveals a very highly significant relationship between whether the respondent was an instrumentalist or vocalist and whether they considered improvising to be a characteristic of a genuine jazz musician ($\chi^2 (2) = 14.321, p < .001$) (see Appendix O for the contingency table for Figure 54). The results show that singers are less likely than players to consider improvising to be a characteristic of a jazz musician. In all, the survey confirms the literature review’s findings that improvisation is strongly associated with the identity of jazz musicians. Vocalists are significantly less supportive of the notion than instrumentalists.

One possible explanation for the difference in the extent of support is that agreement with the statement may jeopardize the singer’s classification as a genuine jazz
musician. That is, if improvising a solo is considered a skill of “real jazz musicians” then vocalists who do not solo may find their legitimacy as jazz artists questioned. More research is required to explain the divergence in the extent of support, and to investigate its connection to role. At this point it is sufficient to observe that there is a likely tension between the universally high perception that improvising is a part of the jazz musician’s identity and the lower expectation that singers will improvise.

Finally, the survey investigated whether vocalists felt being a singer ultimately affected their improvisation opportunities. Vocal participants were asked were asked “Do you think being a vocalist reduces the number of opportunities to improvise?” Of those who responded (n=48), 50% (n=24) indicated “yes”, while 43.75% (n=21) said “no” and the remaining portion of 6.25% (n=3) selected “don’t know”. The results are illustrated in Figure 55 (see Figure 55).

*Figure 55. Percentages of vocal respondents showing whether they consider being a vocalist reduces the number of opportunities to improvise.*

The results show there is a marginally greater agreement that being a vocalist is perceived to reduce the opportunities to improvise.
Overall, the survey and interviews establish that there is less emphasis placed on the role of improviser for singers than for instrumentalists. Evidence was found in the lower frequency of vocal improvising during performance, a perception that improvising is optional for singers compared to compulsory for instrumentalists, and a generally lesser expectation that singers will improvise. Further investigation is recommended into how less emphasis on improvising for singers interacts with perceptions of the identity of jazz musicians.

The Experience of the Difference of Less Emphasis on the Role of Improviser

The Experience of Less Expectation to Improvise

Less emphasis on the role of improviser generated some specific experiences for vocalists, including a lower expectation that they will improvise. In the interviews, Michelle recounted the surprise of instrumentalists when she improvised ably at a jam session in New York. She also observed the bewilderment of audiences at performances in Australia who could not figure out what she was doing. She suggested their confusion arose from an unfamiliarity with scat singing:

[The audience] don’t understand [scat] because they don’t see it. Where do they see it? Whereas if I play the saxophone they wouldn’t blink because they’ve seen a saxophone solo. They’ve heard saxophone solos and guitars. They hear it every day. (Michelle)

Mike and Sharny agreed with Michelle’s assessment that an audience’s response to scat may emanate from a limited exposure to vocal improvisation. With “fewer [vocal] role models” than instrumental improvisers, as Mike noted, scat singing is not an expected contribution of singers.

Several educators identified the difference in expectation of vocalists and instrumentalists to improvise as an important distinction in jazz education. They
reported using a deliberate pedagogical strategy that demands vocalists improvise as much as instrumentalists. Robert cited having the same expectations of singers and instrumentalists as “the key” to developing vocal improvisers. Dan Q concurred:

What I’ve found is that a lot of the time it can be the way the information is delivered as to what is expected of the vocalists. If the same expectations are on the vocalist as what they are on the instrumentalists, that’s a really good thing...(Dan Q)

Jamie pointed out that at his university singers are “required to scat”, in contrast to the norm where scat is considered optional. Louise described encouraging singers in her first year ensemble to improvise over the blues to counteract their feelings that “Vocalists shouldn’t improvise.”

Another factor arising from the lesser expectation of singers to improvise is a perception that vocal improvisation is a superfluous contribution to jazz performance. Specifically, if improvisation is considered essential to jazz performance, and this requirement is already met by instrumentalists, then vocal improvisation may be regarded as redundant, as Michelle experienced:

I did a gig the other night with my sextet...who are all amazing improvisers. All very, very different styles. I just so wanted to sit down and listen to them. And I’m thinking, “Why should I do a solo? This is just silly.” Like I’m totally superfluous. (Michelle)

The illustration reveals that Michelle’s motivation to improvise was dampened by an awareness that the role of improviser was already filled admirably by the instrumentalists in her band. Mark summed up the effect simply as this: “If you’ve got a jazz quartet, you don’t really need your singer to sing five choruses...” The remark shows that the expectation that instrumentalists will fill the role of improviser may
reduce the need for any vocal contribution. This in turn may produce a feeling that vocal improvising is redundant.

Motivation

Michelle’s hesitation to improvise following the instrumentalists in her sextet, as illustrated previously, links a lower prioritisation of vocal improvisation with lower motivation in singers. Louise articulated the connection:

I think maybe some vocalists don’t see [scatting] as really even being important and therefore they’re not really motivated to explore it, whereas there’s no such thing as a jazz instrumentalist who doesn’t solo. (Louise)

Lower motivation was also observed by Melissa when she noted that some vocalists “aren’t interested” in improvising because they are focused on the function of storytelling. Libby agreed that some singers are unmotivated because they “feel they don’t need to” improvise. Her use of the phrase “don’t need to” implies that singers do not consider scatting an obligatory function. Libby contrasted their lack of enthusiasm with her experience as a highly motivated student who would “take a solo on everything” in an effort to learn scatting. She described herself as being “a bit more desperate” than her fellow voice students who would “just sit and watch”. As explored in Chapter 7: Findings on Music Learning Experiences (Familiarity with Referents and Procedures), it is possible that the efforts Libby made to “solo on everything” may have increased her familiarity with jazz referents and procedures and her increased experience with manipulating them. Her fellow students who were not motivated may have missed these opportunities for skill development. Consequently the potential of perceived role to decrease motivation to improvise has significant implications for jazz education.

Additional explanations for the lower motivation of singers to improvise were offered by Louise and Jamie. Louise intimated that some vocalists “don’t see [scatting] as really
even being important and therefore they’re not really motivated to explore it”. Here, the perception that vocal improvisation is unnecessary appears to impact on motivation. Louise also suggested that instrumentalists may be more motivated because “they often come in with a higher level [of improvisation skills] so they already are at a stage where they enjoy it and want to do more of it.” It implies alternatively that because vocalists’ skills are less, they may be less inclined to enjoy it. Jamie postulated that vocal students are not generally as motivated as instrumentalists because there is an assumption projected upon them that they will not improvise. Consequently they are discouraged from trying.

Vocal interviewees who did describe a high level of drive to improvise generally referred to scatting as a pleasurable experience. Sharny, Nick, Naomi and Michelle each mentioned being motivated by personal enjoyment to participate. For example, Michelle gave this account:

The most exciting thing about playing jazz is that it is like a group conversation and that’s what I love most about it. I find the formula of a person singing the melody and then passing it over to somebody else to have all the fun, and then coming back and singing the head out, I find that really boring. (Michelle)

Michelle expressed that her personal enjoyment of scatting motivated her to pursue the role of improviser. She also acknowledged in the interview that other singers may not choose this path, which supports the earlier finding that vocal improvisation is considered optional.

While some singers cited a personal love of improvising as enthusing them, the literature suggested that vocalists on the whole are not as motivated as instrumentalists to improvise a solo when performing (see Appendix A, Perceived Difference 27). This proposition was investigated in the survey when participants were asked, “Are you generally motivated to improvise an instrumental/scat solo when performing?” Of the instrumentalists who responded (n=139), 90.7% (n=126) said
“yes”, while 7.9% (n=11) selected “no” and 1.4% (n=2) indicated “don’t know”. Of the vocalists who responded (n=63), 63.5% (n=40) said “yes”, while 33.3% (n=21) selected “no” and 3.2% (n=2) indicated “don’t know”. The results are illustrated in Figure 56 (see Figure 56).

Figure 56. Jazz musicians’ indication of whether they are generally motivated to improvise a solo when performing.

Chi square analysis reveals there is a very highly significant association between whether the respondent was a vocalist or instrumentalist and whether they were generally motivated to improvise a solo when performing ($\chi^2 (2) = 20.666, p < .001$) (see Appendix O for the contingency table for Figure 56). The analysis shows that vocalists are generally less motivated than instrumentalists to improvise a solo during performance. Overall the results of the survey support the findings of the interviews that, for various reasons, vocalists are not as motivated to improvise a solo as
instrumentalists, with the possible exception of some individuals who are motivated by personal enjoyment.

*The Decision to Scat*

The singer’s option to scat introduces a new element to the vocalist’s experience. The changeability instigates a decision making process which singers encounter when considering whether to improvise. The singer’s role is described aptly by Melissa as being “a lot more fluid”, whereas the instrumentalist’s role as improviser is regarded as fixed. As Louise observed, “...there’s no such thing as a jazz instrumentalist who doesn’t solo”.

Interviewees cited a variety of reasons which affected their decision of whether to improvise vocally. For Dan B, the choice was generally made intuitively. When asked what influenced him to scat a solo rather than play it on the trombone, he responded:

> That’s a very good question. That’s all very spontaneous I would say. That could happen anytime. Sometimes I won’t play the trombone for five tunes. I scat. I do whatever comes, whatever I feel like, wherever I feel a need to be taking it, I guess. (Dan B)

Kristin and Jacki revealed their decision to scat has been prompted by a mood or emotion. Kristin said she switched to the role of improviser when she “really [felt] like taking a solo”. Likewise, Jacki reported she would “only scat when the mood really [took] me”. She added that unlike instrumentalists she did not see improvising “as an extension of every song”.

For Mark, the decision to scat was at times influenced by his performance on trombone:
If I’m having bad chop problems [on trombone], like I haven’t been practising, I would prefer to perhaps just try and do a scat solo because I think I can get around it a little bit more. (Mark)

Mark elaborated that he chose to scat on occasions when he was “chopped out”. His expression refers to a player’s lip muscles being no longer able to maintain the necessary embouchure to play trombone due to tiredness. He verbalised his decision making process at those times as, “Oh well, what can I do for a couple of choruses here? Oh, I’ll scat”.

Some interviewees suggested the instrumentalist’s sense of obligation to solo is not experienced by singers. Sharny declared “[having] a go” is “not a good enough reason” to scat. Likewise, Jacki rejected scatting out of duty, when reflecting on her decision making process:

I don’t want to just scat for the sake of scatting, improvise for the sake of improvising, but really have something to say. I’d rather “if the mood takes me I’ll take a solo”. I don’t want it to be “yes, you’re number 3”. (Jacki)

Interviewees also discussed factors which influenced a decision to improvise less frequently than instrumentalists. Mark, Ingrid and Ashley each reported saving scat solos for prime occasions in a performance to ensure they added variety and interest to a musical program. Mark explained that by limiting its frequency, the scat solo could be guaranteed to “[give] the audience something different”. Likewise, Ingrid noted that reducing scat solos can create the opportunity to effectively “pepper a program” when desired. Ashley equated it to adding “salt”:

I find [scat singing is] only appropriate in small doses in the right spot. It’s like sticking too much salt in your cooking. I have been to many gigs where I’ve heard singers, especially jazz gigs, where the whole meal is salt. I think it can be too much. (Ashley)
These illustrations demonstrate that vocalists may at times limit their improvising for the purpose of increasing its impact when it does occur. It is not an expected contribution of singers, and therefore can be reserved effectively as a novelty or as a variation in performance.

Another reason why vocalists may limit their improvising in performance was offered by Kristin. She suggested that extensive scatting can be “just too hard to listen to”. As discussed previously in Chapter 6: Findings on Embodiment (Pedagogical Implications of the Difference of Embodiment), scat may be undesirable because removing lyrics can disconnect an audience. The importance of maintaining the performer–audience relationship may therefore discourage singers from assuming the role of improviser.

Sharny, Libby, Melissa and Michelle gave examples of how their concern for the audience’s enjoyment directed their decision to abstain from scatting. Sharny reported choosing to stop improvising during a set in order to “give [the audience’s] ears a break”. Libby said she limited scat in her performance to avoid “boring the audience”. She further elaborated on how her role as a bandleader affected her choice:

If we’re doing a tune and the piano player’s taken [a solo] and the sax player’s taken one and the bass player’s taken one then I won’t take one. I’m always thinking about being in charge of the gig and needing to take control of what’s happening for the audience. Unless the song is extremely exciting and there is something really different happening and I feel it’s dynamic, I won’t let a song just run on and on and on so we can all take several choruses on it. (Libby)

In these circumstances, Libby’s decision not to scat is influenced by her consideration of the audience, with the opportunity of a vocal solo being declined for their comfort.
Melissa described a desire to “regulate” how frequently she scats to avoid alienating her audience. Likewise, Michelle detailed her motivation for altering her improvising from scatting to embellishing lyrics:

I don’t want anyone to feel uncomfortable and I don’t feel like I need to shove stuff down [the audience’s] gobs either. They probably want to hear the song. I’m happy as Larry to sing a song. In that sort of case, for more of a straight ahead gig, I still improvise but I’ll keep it straighter and I’ll probably just keep improvising on the words and do two or three chorus of the head, Ella [Fitzgerald]–Sarah [Vaughan] style, and people love that. (Michelle)

Aside from prioritising the audience’s comfort, Michelle’s illustration also shows that the type of audience may be influential when deciding whether to scat. Jacki gave a similar illustration:

If I walk into a room and it’s tea and coffee and cake day at the senior citizens hall then I’m not going to do any bebop. I’m not going to do any modal tunes. I’m probably not going to scat very much... (Jacki)

Kristin and Mark also reported adjusting the frequency of their improvising for particular audiences. Kristin said she reduced her scatting if they were not “jazz-ers”, while Mark mentioned increasing it for “an educated audience”.

Naomi suggested vocalists may also choose not to scat to avoid encroaching on what they perceive as the instrumentalist’s territory:

I think for vocalists who are really good improvisers, they are sort of cutting out a little bit of the instrumentalist’s opportunity if they then take a fantastic scat solo. There’s less left over for the band. (Naomi)
Naomi’s remark suggests that vocalists may feel they are violating a tacit agreement of the division of labour. Singers may experience a coercion from other musicians to refrain from improvising. The subtle boundary, as proposed earlier, may be to protect the instrumentalist’s opportunity to feature in a performance. This possibility is supported by Libby’s description of “a pressure to only provide the lyric and leave the improvising to the instrumentalists”. She reported finding the pressure “very intimidating” as both a university student and as a member of the university staff.

To summarise, the perception that vocal improvising is optional generates a decision making process for singers of whether or not to scat. The choice may be influenced by a variety of factors including intuition, mood, the need for rest from playing an instrument, preserving the impact of the scat solo, the audience’s comfort, the type of audience and a pressure to reserve the role of improvising for instrumentalists.

Technical Proficiency

While reflecting on the functions of musicians, Naomi noted that instrumentalists have “a more technical role” than vocalists. She saw their function as accompanying the singer and providing an improvised solo in a “star moment”. Her observation brings to light the contribution of technical proficiency to the jazz improviser’s role. Technical proficiency, in this context, can be defined as expert musical skills in instrumental or vocal performance.

The literature review identified there is a perceived difference between the level of technical proficiency necessary for jazz vocalists and instrumentalists to be successful jazz musicians (see Appendix A, Perceived Difference 29). This perception was tested in the survey by asking participants (N=209), “In your experience, which musician requires greater technical proficiency to be a successful jazz musician?” Of the response options, 48.8% of respondents (n=102) said the “instrumentalist” requires greater technical proficiency, while 6.7% (n=14) indicated “vocalist”, 34% (n=71) selected “neither” and the remaining 10.5% (n=22) chose “don’t know”. The findings,
illustrated in Figure 57, show there is a more common perception that instrumentalists require greater technical proficiency than vocalists to be successful jazz musicians (see Figure 57).

*Figure 57. Percentages of survey respondents showing which jazz musician is considered to require greater technical proficiency to be a successful jazz musician.*

In the interviews, technical display was identified as a method used for entertaining an audience during improvising. Naomi explained how the requirements of the musician’s role altered the need for these skills:

I think vocalists and instrumentalists in jazz usually have a different purpose overall. For example, a singer I think is usually the front man/woman of the band and is responsible for delivering to the audience and connecting with the audience and delivering the song rather than being the most amazing improviser in the world. And the instrumentalist’s role, if there is a singer, is to accompany that singer really musically and sensitively, and also to take solos that are an impressive diversion from what the vocalist is doing. (Naomi)
The “impressive diversion” to which Naomi referred suggests greater technical skill is utilised and displayed by instrumentalists when fulfilling the role of improviser. Michelle referred to it as the “chop factor”, while Ashley called it the “technical appreciation factor”. Both intimated that the audience has a higher expectation of witnessing it in the instrumentalist’s performance than in the vocalist’s.

Although technical display may appear impressive to audiences, Michelle, Mark and Ashley cautioned that it may obscure deficiencies in the skills needed for improvising. Ashley explained:

> Sometimes you get a lot of brilliant musicians that are proficient at doing that kind of gobbledygook. [Ashley demonstrates the sounds of an instrument playing very fast passages of notes.] That’s just muscle memory. That’s not expression. It’s nothing on a deeper level...That doesn’t impress me. (Ashley)

Michelle showed a similar awareness that technical display can conceal musical shortcomings yet attract audiences:

> Technique is a funny one though because someone can have all the technique in the world but still leave you totally cold, instrumentally or vocally...People are drawn to people who have dazzling displays. It’s just like strength or whatever...But really people who are really listening to the music and are drawn to the music, they’re not listening for that. Maybe that’s what draws them in initially. (Michelle)

Mark also agreed that the use of rapid technical passages in improvisation can be a sign of musical superficiality:

> I hear sax players that are okay but they just go on and on and on and on and on. Mate, I’ve heard it before...You know, you just go, “what’s your point?” In a nice way. “Yeah that’s good, that’s cool, I understand you’ve got lots of chops
In contrast to instrumentalists, Andrew, Sharny, Libby and Nick suggested vocalists may not need to be as proficient technically as instrumentalists to be successful performers. Libby attributed the lower standard to the different requirements of the musicians’ perceived roles. Sharny agreed that the “same kind of virtuosity is not expected” of singers and “just doesn’t seem to fit the vocal as well as it fits the instrumental”. Naomi argued that technical proficiency may be de-emphasised for vocalists because they have priorities other than “being the most amazing improviser”. Nick asserted that the different focus exists because singers have verbal capabilities:

I think it’s obvious that singers do not have to be technically proficient. All you need to do is look at the top players in instrumental fields and vocal fields and you can see that. Herbie Hancock is far more technically proficient on piano than Diana Krall is on vocals, but she’s great. She has lyric. She can stir emotion without having to be technical about it. (Nick)

Melissa agreed that the presence of lyrics may reduce the need for technical proficiency. Her comments distinguished the technical requirements of improvising from the requirements of delivering the melody:

If you take the approach that storytelling is paramount then, if you’re a singer who’s really good at that and you have a range of one octave like Billie Holiday, you can still be a great singer. It’s not absolutely paramount that you have fantastic vocal technique to do that...[I]f you want to actually improvise and scat then, if you have limited technique, you’re going to be very limited in what you can really pull off there. In terms of the range [it] will be quite limited. Someone like Kurt Elling has got such an amazing technique and Michele Nicole as well. They can just traverse their entire range and they can sing whatever comes to mind because they have such mastery over their technique. (Melissa)
Melissa’s remarks suggest that the need for technical proficiency may be less for the vocalist who does not improvise. For the improver, however, technique can be the enabler of “whatever comes to mind”. Consequently, a connection between the role of improver and technical proficiency can be drawn.

Mark agreed with Melissa that greater technical proficiency is desirable for improvisers as it provides more options for composition. He noted, conversely that, “if you’ve got a small amount of technique, you’ve got to have a lesser range of what you can improvise with successfully.” The comment supports the interpretation that limited technique may affect improvising.

**Section Summary: Less Emphasis on the Role of Improver**

The findings of the second section of this chapter showed that less emphasis on the role of improver produces some different experiences for singers compared to those of instrumentalists. Research revealed that the vocalist is less likely to assume the role of improver in jazz performance. Participants attributed the jazz tradition to assigning improvising to the instrumentalist’s duties. For vocalists, improvising was regarded as optional, generating a decision making process where the singer considered whether to assume the role of improver. Reasons for choosing to improvise included personal enjoyment, intuition, mood, providing variety in performance, and resting from playing an instrument. Reasons for refraining from improvising included a fear of boring or disconnecting the audience, a desire to reserve the novelty of scat, a perception that the act was redundant, the presence of a non-jazz audience and a pressure to reserve the act of improvising for instrumentalists.

A lack of expectation that vocalists will improvise in performance was identified in the survey and cited in the interviews as a significant difference between instrumentalists and singers. The finding illuminates philosophical questions over whether singers who do not scat can be classified alongside instrumentalists as genuine jazz musicians.
Singers also reported generally a lower level of motivation to improvise than instrumentalists, with the exception of the singers who personally enjoyed the act. Finally, technical proficiency was identified as a desirable skill for jazz improvisers as it enables compositional ideas and draws an audience. Lower technical proficiency was not considered a limitation for singers who choose not to improvise. Overall, Melissa’s observation that the vocalist’s role is more “fluid” than the instrumentalist’s encapsulates the flexibility that vocalists have to move in and out of the role of improviser if desired.

The findings regarding this section are summarised in Figure 58 (see Figure 58). The figure illustrates the contribution less emphasis placed on the role of improviser makes to distinguishing the singer’s experience of improvising from the instrumentalist’s.
Figure 58. Summary of findings on how less emphasis on the role of improviser differentiates singers.

- Less improvising during performances
- Less expectation to improvise
- Improvisation considered optional in singer’s role
- Generally lower motivation to improvise
- Vocalists decide whether or not to scat based on many factors
- Limited technical proficiency may affect improvising
- Questions raised on classification of non-improvising singers
Pedagogical Implications of the Difference of Role

The findings presented in *Chapter 8* demonstrate that vocalists have differing experiences from those of instrumentalists in the emphasis on the roles of performer and improviser. These differences generate implications for vocal improvisation education. To begin, a greater emphasis on the role of performer for singers promotes a focus on the performance responsibilities of the musician’s role. It accents an awareness of the audience and encourages consideration for entertaining, connecting and interacting with them. Both stagecraft and visual display receive attention as components of audience entertainment. Such performance skills may be valuable for all jazz musicians however the increased emphasis given to them for singers may divert vocalists’ time and attention from accumulating other skills, such as those beneficial for improvising.

A reduced emphasis on the role of improviser for singers was also identified in the research. Improvising was regarded the responsibility of the instrumentalist, and thus vocal improvising was perceived as an unexpected, redundant and optional function. As before, this perspective may affect the vocal student’s learning priorities. In this case, attention is directed away from acquiring improvising skills as they are regarded as not essential for singing.

The singer’s emphasis on vocal performing and the corresponding de-emphasis of improvising may require adjustments for those seeking to develop improvising skills. Educators may wish to re-prioritise studies to direct vocal students’ efforts to tasks that are more enabling. For example, technical proficiency was identified as a valuable skill for facilitating the realisation of the musician’s musical ideas during improvising. By increasing time spent developing this, vocal students may be able to function in the role of improviser with more agility and with access to a larger storehouse of audiated ideas. This conclusion is congruent with Smith’s (2009) study that noted an increase in sophistication in improvised solos is likely to arise from an increase in performance skills (p. 231).
The second pedagogical implication arising from the differences in perceived role is that the lack of expectation that vocalists will improvise may impact on singers’ motivation and ultimately affect their skill development. The research showed that the role of improviser is generally filled by instrumentalists, and considered optional for singers. Without the need, voice students may be less motivated to pursue the associated skills. This observation is relevant in the light of Eisenberg and Thompson’s (2003) study, cited in Chapter 2, that found musicians who are more motivated produce improvisations that are “more creative, complex and technically good” (p. 294). Increasing the expectation that singers will improvise was cited in the interviews as a key teaching strategy. The approach removed effectively the vocalist’s choice of whether to scat in an education setting. Without the option to decline, the need for improvisation skills is likely to increase along with the motivation to acquire them. Further research is required to investigate and confirm this possibility.

**Chapter Summary**

*Chapter 8* has explored role as the fifth of five primary categories of how improvising jazz vocalists differ significantly from instrumentalists. The side-by-side analysis and discussion of quantitative and qualitative data obtained from the survey and interviews revealed that vocalists differ by experiencing more emphasis on being a performer and less emphasis on being an improviser. This is summarised in Figure 59 (see Figure 59). The chapter concluded with a discussion of implications for jazz vocal improvisation education and recommendations for further research.
How improvising jazz vocalists differ from instrumentalists

- More emphasis on the role of performer
- Less emphasis on the role of improviser
This chapter has also illuminated areas of overlap in the thesis between the experiences of role and other categories of significant difference. Table 8 provides a visual summary of the intersections (see Table 8).

Table 8. Intersection of role with other subcategories of difference.

Together, Figure 59 and Table 8 demonstrate how role contributes to distinguishing improvising vocalists as significantly different from instrumentalists.
Chapter 9: Conclusion

The purpose of this thesis has been to explore how improvising jazz vocalists differ significantly from instrumentalists. This final chapter will complete the process by summarising the research journey, consolidating the findings and considering the global implications for vocal jazz improvisation education.

Summary of the Research Journey

The thesis began with anecdotal observations that vocalists do not achieve in jazz improvisation as frequently or to as high a standard as instrumentalists. The observation motivated a search for other differences that logically must exist to produce the effect. Rather than drawing a line of causality, the thesis emphasised identifying and exploring the attributes of the differences. As the opening chapter argued, it is premature to offer educational “fixes” to the lag in achievement before the nature of the vocalist is investigated.

The exploration commenced with an examination of the literature from three relevant sources: jazz research, jazz education, and professional practice. The literature review positioned the study amid existing works and theoretical frameworks in jazz research. The review revealed that differences between improvising jazz vocalists and instrumentalists were mentioned frequently but the comments appeared in isolation without considering their combined significance or implications for practice. In studies, researchers sampled either instrumentalists or vocalists yet their conclusions were, at times, generalised to all jazz musicians, filtering out critical variables. Studies that offered new models created in specific contexts did not accommodate the complexity
of the phenomenon of the “jazz musician” that contains both distinctly vocal and distinctly instrumental components.

Following the review of literature, the chapter presented a list of 37 distinctions drawn from the collation of existing references to differences. This process answered the first of the secondary research questions: “What are the differences that have been cited in the research, educational and professional practice literature that distinguish improvising jazz vocalists from instrumentalists?”

Using the list of differences as a starting point, a two-phase, sequential mixed methods model was designed for the purpose of acquiring new data for exploring how improvising vocalists differ significantly from instrumentalists. Phase one of the study implemented an anonymous, quantitative survey of Australian adult performing jazz musicians. The responses of 209 participants were collected and analysed using PASW software to determine which of the 37 differences found in the literature were statistically significant. This analytic process answered the second of the secondary research questions: “Which of these cited differences are statistically significant differentiations in the observations or experiences of current, professional Australian jazz musicians?”

A qualitative, semi-structured guided interview schedule was then designed to explore how the differences were experienced in vocal jazz improvisation. Phase two initiated interviews with 22 Australian jazz vocal performers and/or senior tertiary jazz educators. The computer software NVivo was used to assist in the organisation of data for thematic analysis by the researcher. This analytic process answered the third of the secondary research questions: “How have Australian jazz vocalists and/or tertiary jazz educators experienced these differences?”

Findings from the two-phase sequential mixed methods model were reported in a side-by-side comparison that integrated quantitative and qualitative data. The approach enabled the processing and presentation of data, coherence in discussion,
and the adoption of an organisational framework that facilitated a systematic progression through to the findings.

**Consolidation of the Findings**

The findings revealed five primary categories of difference between vocalists and other improvising jazz musicians: 1) motor feedback, 2) verbal capability, 3) embodiment, 4) music learning experiences, and 5) role. Analysis found that vocalists experience a difference in the quantity and quality of motor feedback during improvisation compared to instrumentalists. Divergent experiences were reported in utilising motor feedback, the use of audiation, and the conceptualisation of pitch. The second differentiation, the unique verbal capability of the vocal instrument, was shown to generate specific experiences in the processes of relinquishing lyrics and implementing scat syllables. The location of the vocal instrument inside the human body was the third category of difference. The distinctions were manifested in the vocalist’s experience of the organic nature of the vocal apparatus, a perception of personal representation, and a performer–audience relationship expectation. Music learning experiences were found to differ for singers in their familiarity with referents and procedures, their approach to self-directed music practice, and opportunities to develop improvising skills. Finally, perceptions of the vocalist’s role increased the emphasis on performing and lessened the emphasis on improvising.

The discussion of the findings also flagged frequent links between the five primary categories where the findings in one subcategory overlapped with the findings of another. As a result, a web of interconnection was identified. The linkages between the subcategories are summarised in Table 9, which demonstrates how vocalists differ significantly from instrumentalists (see Table 9).
Table 9. Summary of the interconnection of all subcategories of difference.

<table>
<thead>
<tr>
<th></th>
<th>Motor Feedback</th>
<th>Verbal Capability</th>
<th>Embodiment</th>
<th>Music Learning Experiences</th>
<th>Role</th>
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</thead>
<tbody>
<tr>
<td><strong>Motor Feedback</strong></td>
<td>Utilising motor feedback</td>
<td>The role of audition</td>
<td>Conceptualising pitch</td>
<td>Relinquishing lyrics</td>
<td>Implementing scat syllables</td>
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<tr>
<td><strong>Verbal Capability</strong></td>
<td>Relinquishing lyrics</td>
<td>Implementing scat syllables</td>
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<tr>
<td><strong>Embodying</strong></td>
<td>The organic instrument</td>
<td>Personal representation</td>
<td>Performer–audience relationship expectation</td>
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<tr>
<td><strong>Music Learning Experiences</strong></td>
<td>Familiarity with referents and procedures</td>
<td>Approaches to self-directed music practice</td>
<td>Opportunities to develop improvising skills</td>
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<tr>
<td><strong>Role</strong></td>
<td>More emphasis on the role of performer</td>
<td>Less emphasis on the role of improviser</td>
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= Findings show a relationship between categories

Overall, the five primary differences and their subcategories constitute a new conceptualisation of the attributes of improvising jazz singers. The knowledge revealed in this thesis offers a new theoretical framework. As discussed in Chapter 2 and in alignment with Miksza and Johnson’s (2012) usage of the term, “theoretical
frameworks” can be applied over different levels of abstraction to a variety of concepts, including new models. The findings of the thesis are therefore encapsulated in a model titled *Hargreaves’ Model of How Australian Improvising Jazz Vocalists are Perceived to Differ Significantly from their Instrumental Counterparts* (see Figure 60).

*Figure 60.* Hargreaves’ model of how Australian improvising jazz vocalists are perceived to differ significantly from their instrumental counterparts.
The model illustrates the conclusion of the thesis that improvising jazz vocalists differ significantly from instrumentalists in the areas of motor feedback, verbal capability, embodiment, music learning experiences and role. Research shows that singers are perceived to function as a distinct and unique sub-group of improvising jazz musicians. They encounter experiences that differ significantly from their instrumental counterparts.

As stated previously, the purpose of this thesis has been to explore how improvising jazz vocalists differ significantly from their instrumental counterparts. To achieve this, singers and players have often been placed in juxtaposition to illuminate differences. The frequent contrasting may have implied to readers that vocal–musicians and instrumental–musicians are polar opposites, existing as a dualism where the musicians’ characteristics do not overlap. That interpretation however would misrepresent the thesis. Improvising jazz vocalists and instrumentalists are perhaps better conceptualised as two intersecting ovals where some characteristics are shared by both parties, and others are independent (see Figure 61).

*Figure 61. A depiction of the relationship between the unique and shared characteristics of improvising jazz musicians*
This thesis has focused on what constitutes the unique attributes of singers, as represented by the red portion in Figure 61. The findings should not be construed to represent the totality of the vocal musician. Instead they depict only one portion. The grey portions of the diagram represent the characteristics that have not been directly examined in this thesis. They are the characteristics that are shared by vocalists and instrumentalists, and the traits that are uniquely instrumental. This thesis has not drawn explicit conclusions about these two areas. Their attributes have been discussed only with the objective of distinguishing vocalists. Researchers may wish to investigate these two areas in future studies by interviewing musicians who are solely instrumentalists.

Phase two of the study provided the opportunity to discuss differentiations with some musicians who were skilled equally as instrumental and vocal improvisers, such as Dan B, Ashley and Mark. Their experience in both roles offered insights into the contrasts. The perception of what changed was vivid as they moved successively from one role to the other. One less common phenomenon that was not examined by this thesis is the musician who improvises simultaneously with voice and an instrument. An example of this is George Benson who improvises guitar solos while scatting.

This type of musician raises many new questions as to how vocal differentiations are experienced while improvising. For example, how are ideas that are generated from instrumental motor programs applied to the voice, and vice versa? Are instrumental or vocal motor programs more dominant than the other in generating ideas, and, if so, does the dominance change in certain circumstances? Is the choice of scat syllables affected by the timbre of the instrument being played? How does the musician negotiate the variability of the organic nature of the “vocal instrument” with the comparatively fixed nature of a man-made instrument? How is the musician’s role perceived by the audience and by other musicians? And, perhaps most relevant to this thesis, are the boundaries of what is unique and what is shared altered in the phenomenon of the simultaneously improvising jazz–player–singer? Do the attributes interact equally or is there a hierarchy? Are new variables created? To accommodate
these questions, the framework of differentiation proposed by this thesis should be regarded, as it was intended, as a preliminary map of new territory. This mindset allows flexibility for critical assessment and modification of the framework as ongoing research on improvising jazz musicians provides more detail and greater depth in understanding.

This thesis has responded directly to the demands by Heil (2005, p. 143), Madura (1992, p. 211), May (2003, p. 256) and Wadsworth-Walker (2005, p. 255) for research that investigates the attributes of vocal improvisers as distinguished from other musicians. The broad exploratory approach was necessary to uncover a preliminary outline of differences. The research drew upon the perceptions of jazz musicians as a means of detecting significant variations in a vast landscape. From this foundation, further research can be conducted separately into each area and its subcategories to identify their precise parameters and variables. By isolating each perceived difference and progressing it to a measured component, deeper probing beyond the scope of this exploratory study can be achieved.

Future researchers may also wish to test the conclusions against jazz musicians from other countries. This thesis limited its data sample to current Australian residents. Researchers may therefore seek to replicate the study in international settings to ascertain whether the findings are applicable globally. Additionally, confining the definition of improvisation to the solo section in a traditional jazz performance deliberately excluded interpretation from the investigation. A broader definition may be employed in future studies to explore how vocalists’ differentiations manifest when using the improvisatory skills present in interpretation.

The conclusions of the thesis also invite investigation as to whether differences can be abstracted to a higher level of application. It is possible that the finding of five primary categories of difference may be a symptom of the phenomenon of music makers, irrespective of musical genre. Is there a complexity in the nature of all “musicians” which distinguishes them as vocal–musicians and/or instrumental–musicians? This
pertinent philosophical question emerges from the evidence base of this thesis, and may motivate future enquiry.

**Implications for Vocal Jazz Improvisation Education**

This research has also generated notable implications for jazz education. The assumption that a standardised jazz education approach is applicable equally to vocalists and instrumentalists has been challenged by the research findings. Such an approach fails to acknowledge the fundamental attributes of singers and thus does not accommodate their specialised needs. Without modification, the so-called “instrumental method” is inadequate for vocal students. Thus educational programs built upon a “one size fits all” philosophy for instrumentalists and vocalists are questionable and unsubstantiated.

This thesis may be used to advocate for the educational needs of jazz singers by arguing that their experience represents a significant variation from the norm of other jazz musicians’ experiences. In recognising that improvising vocalists differ, policies and curricula for tertiary study can be adjusted formally to cater for singers’ unique characteristics. Future research can ascertain the precise parameters of each difference and their effect on teaching and learning. The knowledge can then be used to construct educational models for vocal improvisation education, incorporating the particularities of vocalists’ attributes.

Jazz educators may consider the options of creating a unique segregated vocal improvisation class, establishing a supplementary vocal class to accompany a standardised jazz program, or modifying a program in the combined classroom to accommodate vocalists’ needs. Regardless of the adopted approach, the appropriateness of the curriculum and pedagogy for vocalists is a new litmus test in every pedagogical decision affecting jazz vocal improvisation education.
The process of investigating, modifying and implementing educational programs is likely to produce some further philosophical debates regarding vocalists. For example, this study encountered conflict over whether improvising should be considered compulsory for jazz vocal students, whether teaching singers to conceptualise in absolute pitch is actually helpful to their improvising, whether the 12 key approach is relevant to singers, and whether singers who do not improvise should be classified as jazz musicians.

In addition to philosophical challenges, the recommendation that improvising vocalists be given specialised attention may also present financial challenges to tertiary institutions. Indeed, it is possible economics has already been a subtle force in maintaining the status quo of assuming vocalists are being educated adequately by a standardised program in the combined classroom. As Craig pointed out, music education is an expensive venture given its small staff to student ratio compared to other disciplines. Hence, the recommendation that vocalists receive additional tuition or form a new specialised class is unlikely to be welcomed. Nevertheless, the evidence remains that, if vocalists receive an identical education to instrumentalists, the challenges created by motor feedback, verbal capability, embodiment, music learning experiences and role will not be addressed. Consequently, a call for specifically designed educational programs which draw upon this research is justified.

Regardless of how change is implemented, the overarching pedagogical implication arising from the study is that a single jazz improvisation method for all musicians based on an instrumental approach is discriminatory against singers, albeit unintentionally. Change to programs to accommodate vocalists’ unique characteristics must occur for equitable education to take place.
Closing Remarks

Effective education benefits from teachers who are not only knowledgeable about curriculum but also knowledgeable about their students. By understanding the general characteristics of pupils, educators can select appropriate content and deliver it in a manner suitable for the students’ learning needs. It is this knowledge of the distinct characteristics of vocal improvising students that has been lacking in jazz education until now. The literature has shown that the assumption that vocalists are simply instrumentalists with insufficient theory training has led to educational programs designed to help them “catch up”. In practice, however, a standardised jazz curriculum has not been a neat fit for singers. Failure to identify and acknowledge fundamental differences between improvising jazz singers and instrumentalists may have misdirected efforts to educate them effectively.

In the coming years, vocalists and instrumentalists will continue to participate together in performance and education arenas. As improvising jazz musicians, they will share in the socially, creatively and aesthetically exciting act of generating musical ideas in live performance. Yet, despite commonalities, vocalists will encounter variables not experienced by other members of the jazz band. The findings of this thesis require that improvising vocalists are formally recognised as a sub-group of jazz musicians with unique characteristics and different experiences from their instrumental counterparts. Such recognition can pave the way for the design of more appropriate educational programs for singers. Doing so can facilitate the equitable teaching of improvisation to all jazz musicians.
Appendices
<table>
<thead>
<tr>
<th>1) Statement of the perceived difference</th>
<th>There is a perceived difference between the amount of music training that vocalists and instrumentalists receive.</th>
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<tbody>
<tr>
<td>Representative quote</td>
<td>“Singers feel paranoid around musicians because most musicians have studied, and singers haven’t.” (Mal Waldron in Grime, 1983, p. 81)</td>
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<tr>
<th>2) Statement of the perceived difference</th>
<th>There is a perceived difference between the content of music training that vocalists and instrumentalists receive.</th>
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<tbody>
<tr>
<td>Representative quote</td>
<td>“Students who play band and orchestral instruments are required to read rhythms and pitches from the first day they pick up the instrument. Singers, however, often are not required to learn to read music at all, because many singers begin training in choral groups in which the teacher teaches the part by playing the voice line on the piano. They learn by listening, not by reading.” (Alt, 2004, p. 391)</td>
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<tr>
<th>3) Statement of the perceived difference</th>
<th>There is a perceived difference between the amount of time vocalists and instrumentalists spend listening to jazz.</th>
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<tr>
<td>Representative quote</td>
<td>[Spoken to students in a vocal improvisation class] “So let me get this: you don’t listen to jazz, don’t know any jazz singers, don’t know any chords or melodies; but you listen to pop. Guess what? Your [instrumental] small group is right! You don’t know anything.” (DiBlasio, 1996, p. 35)</td>
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<tr>
<td>Statement of the perceived difference</td>
<td>There is a perceived difference between the amount of jazz improvising experience vocalists and instrumentalists have prior to tertiary education.</td>
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<tr>
<td>Representative quote</td>
<td>“At one time we had first-semester improv integrated with both vocal and instrumental students but found that the vocalists were generally so far behind the experience level of the instrumentalists that it often just didn’t work. (Larry Lapin in Green Nagel, 1997, p. 40)</td>
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<tr>
<th>Statement of the perceived difference</th>
<th>There is a perceived difference between the amount of difficulty experienced in changing technique when vocalists and instrumentalists crossover from classical music to jazz.</th>
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<tbody>
<tr>
<td>Representative quote</td>
<td>“I believe it has been and is more difficult to move between opera or chamber singing and jazz singing largely because trained singers, both in the classical and non classical idioms (music theatre, for example) have not been sensitized to choices in jaw and tongue position, the availability and use of a broader pronunciation palette and/or manipulation of the resonating chambers. Traditional classical training has a rather small window of variables. By contrast, jazz singing has a rather large window of variables.” (Spradling, 2007, p. 28)</td>
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<tr>
<th>Statement of the perceived difference</th>
<th>There is a perceived difference between the educational background training of teachers who teach jazz to vocalists and instrumentalists.</th>
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<tr>
<td>Representative quote</td>
<td>“Moreover, vocal courses in lieu of improvisation classes, if they are offered at all, are all-too-frequently taught by either instrumentalists who don’t sing or singers who don’t improvise.” (Cartwright, 1995, p. 29)</td>
</tr>
<tr>
<td>7) Statement of the perceived difference</td>
<td>There is a perceived difference between the appropriateness of educational resources for improvising jazz vocalists and instrumentalists.</td>
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<tr>
<td>Representative quote</td>
<td>“The area of jazz studies has produced a plethora of information, methods and materials for instrumentalists which address issues such as style, concept, technique, improvisation and repertoire. Although many of these materials are excellent sources of information for the jazz student, the focus on the instrumentalist may inhibit potential students interested in studying jazz singing because of their lack of experience and ability to apply the information to the voice.” (Cooper, 1992, p. 8)</td>
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<tr>
<td>8) Statement of the perceived difference</td>
<td>There is a perceived difference between the level of music literacy of vocalists and instrumentalists.</td>
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<tr>
<td>Representative quote</td>
<td>“Several master-pedagogues reluctantly acknowledged many vocalist have not developed their basic musicianship, including music reading, to the same extent as instrumentalists.” (Wadsworth-Walker, 2005, p. 180)</td>
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<tr>
<td>9) Statement of the perceived difference</td>
<td>There is a perceived difference between the amount of familiarity vocalists and instrumentalists have with musical referents and procedures in jazz improvisation.</td>
</tr>
<tr>
<td>Representative quote</td>
<td>“Why do instrumentalists ‘diss’ singers when they scat? One reason is that many singers venture into scatting with little knowledge of what a jazz solo is...If they scat, they will do attention-getting things and probably not spend hours studying solos and harmony.” (Berkman, 2009, p. i)</td>
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<tr>
<td>10) Statement of the perceived difference</td>
<td>There is a perceived difference between the vocalist’s and instrumentalist’s approach to individual music practice.</td>
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<tr>
<td><strong>Representative quotes</strong></td>
<td>“It was also suggested that proficient instrumentalists at the outset of professional training already have developed a history of self-discipline, exhibited through their practice habits. In contrast, many vocalists were felt to begin formal studies somewhat later in life and without a true understanding of their own motives for doing so. Therefore, it was believed that many singers fail to appreciate the need for dedicating personal time and effort to their musical studies.” (Wadsworth-Walker, 2005, p. 226); “In my experience singers practice much less efficiently than instrumentalists do” (Berkman, 2009, p. iii)</td>
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<tr>
<th>11) Statement of the perceived difference</th>
<th>There is a perceived difference between vocalists and instrumentalists in their sense of musical immediacy.</th>
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<tbody>
<tr>
<td><strong>Representative quote</strong></td>
<td>“It’s so hard to back up and go back to kindergarten and learn all these things, when you really want to sing. You’re so damn spoiled. You’re so used to that immediacy – immediate gratification.” (Marilyn Moore in Grime, 1983, p. 81)</td>
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<tr>
<td>Statement of the perceived difference</td>
<td>There is a perceived difference between the amount of time vocalists and instrumentalists spend practicing skills for improvising.</td>
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<tr>
<td><strong>Representative quote</strong></td>
<td>“There’s a direct relationship between practice time spent and competency. Instrumentalists have long accepted the fact that paying ‘practice dues’ comes with the territory of being a jazz musician; it can’t be avoided if they wish to sound good. However, it seems that most vocalists don’t practice improvisation nearly as much as good players do, though there’s no reason they shouldn’t.” (Weir, 2003, p. 54)</td>
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<tr>
<th>Statement of the perceived difference</th>
<th>There is a perceived difference between the amount of time vocalists and instrumentalists spend on musical activities which are likely to increase their familiarity with referents and procedures.</th>
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<tr>
<td><strong>Representative quotes</strong></td>
<td>“…rigorous practice required to place a vocabulary pattern into their larger store…” (Berliner, 1994, p. 206); “In study of comparable intensity, aspiring jazz performers peruse their music’s multifaceted oral literature, acquiring and analysing a repertory of compositions, classic solos and discrete phrases which embody the aesthetic values of jazz tradition and bring to light the underlying principles of improvisation. By contemplation of this repertory, students absorb the harmonic and melodic forms that guide invention and develop a storehouse of basic musical components from which they fashion their individual contributions to the group.” (Berliner, 1994, p. 493); “Traditionally, I think players tend to practice probably 600% more than singers do. (Michele Weir in Wadsworth-Walker, 2005, p. 190)</td>
</tr>
<tr>
<td><strong>Concurring references</strong></td>
<td>Berliner, 1994, pp. 88, 95, 102, 104; Weir, 2003, p. 54; Welch, 2005, p. 243; Wadsworth-Walker, 2005, p. 116</td>
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<tr>
<td>Statement of the perceived difference</td>
<td>There is a perceived difference between vocalists’ and instrumentalists’ preference for generating ideas when improvising.</td>
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<tr>
<td><strong>Representative quotes</strong></td>
<td>“[I]n a musical improvisation certain patterns are attributable not so much to audialisation (the projection of a particular sound pattern originating in the mind), as to physical organisation of space (a habitual sequence of movement of the hand on the keyboard). Thus, one of the bases of improvisation is kinaesthetic – that is, the outcome of a physical mannerism rather than the projection of a cognitive design. It may be associated, for example, with fingering patterns that have become habitual in particular keys.” (Johnson, 2000, p. 178) “I think singers tend to be more ear-oriented. They have to be, because they cannot mechanically play a note. They have to hear a note before they can sing it, whereas players do not have to hear a note before they play it.” (Michele Weir in Wadsworth-Walker, 2005, p. 162)</td>
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<tr>
<th>Statement of the perceived difference</th>
<th>There is a perceived difference between the amount of self judgement that vocalists and instrumentalists experience while improvising.</th>
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<tr>
<td><strong>Representative quotes</strong></td>
<td>“Your inner critic is that small voice in your head that is constantly reminding you about what your limits are, what you have done and not done. It’s that little voice that says, ‘You can’t do that; you have nothing to say! You don’t know the changes. You haven’t practiced. Who do you think you are; Frank Rosolino?’” (Anderson, 1995, p. 33); “Voice is an essential aspect of our human identity: of who we are, how we feel, how we communicate, and how other people experience us.” (Welch, 2005, p. 245); “An instrument is an extension of you. Whereas a voice is part of you, part of your being.” (Jackie Chan in Grime, 1983, p. 123); “The singer’s instrument is perhaps more personal and more variable in character than any other...” (Burwell, 2006, p. 333)</td>
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<tr>
<td><strong>Concurring references</strong></td>
<td>Wadsworth-Walker, 2005, p. 280; Farber, 1991, p. 32</td>
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<tr>
<td>16) Statement of the perceived difference</td>
<td>There is a perceived difference between the level of risk taken by vocalists and instrumentalists to improvise.</td>
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<tr>
<td>Representative quote</td>
<td>“...when given that singing is a creation of the body and improvisation is a creation of the imagination and spirit, it was felt that the process of learning to improvise using the voice inherently involves a great deal of personal risk”. (Wadsworth-Walker, 2005, p. 130); “An instrument is an extension of you. Whereas a voice is part of you, part of your being.” (Jackie Chan in Grime, 1983, p. 123)</td>
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<tr>
<th>17) Statement of the perceived difference</th>
<th>There is a perceived difference between the amount of motor feedback received by vocalists and instrumentalists during improvising.</th>
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<tbody>
<tr>
<td>Representative quote</td>
<td>“Aural, visual, proprioceptive, and touch feedback reinforce each other for the instrumental improviser, whereas the vocalist has only hearing and proprioception available. Likewise, the design of some instruments allows more precise visual feedback and more categorical kinaesthetic feedback than others. This is almost certainly why sophisticated improvisation using advanced pitch materials is more difficult on the violin than the piano, and extremely challenging for the vocalist.” (Pressing, 1988, p. 135)</td>
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<tr>
<td>18) Statement of the perceived difference</td>
<td>There is a perceived difference between vocalists’ and instrumentalists’ awareness of pitch orientation while improvising.</td>
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<tr>
<td><strong>Representative quotes</strong></td>
<td>“An instrumentalist can push a button, key or string, and pretty much know a certain note is going to come out. But a singer, when they start to sing, doesn’t really know what note is going to come out unless they have perfect pitch or have practiced ear-training.” (Aitken &amp; Aebersold, 1983, p. 8); “An instrumentalist has to think, ‘I’m in the key of A, what is the #9?’ Whereas singers, once they learn the sound, can pick it up quickly”. (Aitken &amp; Aebersold, 1983, p. 9)</td>
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<th>19) Statement of the perceived difference</th>
<th>There is a perceived difference between the use of audiation by vocalists and instrumentalists during skill development.</th>
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<tbody>
<tr>
<td><strong>Representative quotes</strong></td>
<td>“It may be possible to perform phrases on an instrument mechanically, the argument goes, by translating representations like chord symbols directly into finger patterns without pre-hearing the sounds for which they stand, but singing requires that artists both grasp idea firmly in their imaginations and invest them with expressive qualities.” (Berliner, 1994, p. 181); “I can play some things I can’t hear very well yet”. (Michele Weir in Wadsworth-Walker, 2005, p. 170); “Because the voice has no keys to assist in discriminating between possibilities, singers must audiate before producing a pitch.” (Wadsworth-Walker, 2005, p. 162)</td>
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<tr>
<td>20) Statement of the perceived difference</td>
<td>There is a perceived difference between the importance of communicating lyrics by jazz vocalists and instrumentalists.</td>
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<tr>
<td>Representative quotes</td>
<td>“That’s the difference between the voice and other instruments. It has words. It’s one of the reasons I was never fascinated to scat, because that’s, I think, an imitation of what the musicians do with instruments. But I don’t see that as the epitome. To me, the voice is the epitome.” (Abbey Lincoln in Pellegrinelli, 2005, p. 421); “In his initial response to my inquiry about the basis of difference between the voice and instruments, singer Kevin Mahogany explained: ‘What’s different is that I have lyrics that need to be gotten across to the audience, which is not as easy as most people would make you think.’” (Pellegrinelli, 2005, p. 200)</td>
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<tr>
<th>21) Statement of the perceived difference</th>
<th>There is a perceived difference between the connection of vocalists and instrumentalists with an audience due to lyrics.</th>
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<tr>
<td>Representative quotes</td>
<td>“The voice is a more popular instrument than almost everything else. Everybody’s got one. But I think it’s also a more personal way of performing...People identify with the singer a lot more strongly than they identify with the player because you hear the lyrics; you think you’re getting inside of the artist’s mind.” (Tom Evered in Pellegrinelli, 2005, p. 294); “As an embodied universal with the ability to ‘tell stories’, the voice is generally perceived to be more accessible to audiences than instruments...” (Pellegrinelli, 2005, p. 58); “Singers benefit from the perception of accessibility, while jazz instrumentalists suffer from the notion that one has to be knowledgeable to appreciate their music.” (Pellegrinelli, 2005, p. 328)</td>
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<td>Statement of the perceived difference</td>
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<tr>
<td><strong>Representative quotes</strong></td>
<td>“Unlike instrumentalists, who generally feel no such restrictions, many singers say that they will only sing a song if they can relate to the lyrics.” (Pellegrinelli, 2005, p. 267); “If you’ve got any feeling at all, there’s NO WAY you can get up and sing those lyrics if you don’t feel them, believe in them. You’ve got to!” (Betty Carter in Gourse, 2001a, p. 336)</td>
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<p>|   | Statement of the perceived difference | There is a perceived difference in the observance of scat syllable conventions in vocal and instrumental performance. |
| --- | --- |
| <strong>Representative quote</strong> | “The jazz scholar Milton Stewart argues that, in starting vocables with voiced plosives, scat singers are copying brass players’ oft-used ‘da’ tonguing...As jazz vocal technique evolved over time, scat singers expanded their timbral vocabulary with other initial consonants (such as the ‘sh’ often associated with Sarah Vaughan).” (Bauer, 2007, p. 152) |</p>
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<tr>
<th><strong>24) Statement of the perceived difference</strong></th>
<th>There is a perceived difference in the need for vocalists and instrumentalists to develop a personal vocabulary of scat syllables.</th>
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<tr>
<td>Representative quote</td>
<td>“My students always say, ‘What do I say? I don’t know what to say. How do you do scat syllables?’ And of course, we know somebody who doesn’t believe in teaching scat syllables, right? Michael Bourne. Roseanna was on the air yesterday and Michael is like, ‘I don’t, I can’t stand it when they start teaching scat syllables. You know, I knew this professor that he actually told them what to say.’ I’m like ‘okay, well, you can start with telling people what to say. It only helps them. Then you develop your own vocabulary.’” (London, 2007)</td>
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<th><strong>25) Statement of the perceived difference</strong></th>
<th>There is a perceived difference in the emphasis placed on visual display in performance for vocalists and instrumentalists.</th>
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<tr>
<td>Representative quotes</td>
<td>“A lot of groups say, ‘Wear what you want and don’t worry about a dress’. They come on in dungarees. But they play... I’ll tell you what happened to me in France. They lost my luggage and I had to go on that night in dungarees. It killed me.” (Julia Steele in Grime, 1983, p. 10); “I was always seeking to be part of the group rather than a stand-up singer. So I would not stand up front. I didn’t even want to be introduced, because there’s so much attention on the singer. I’ve also had this idea of doing concerts in the dark. Because you become freer when you don’t have to have this image.” (Jay Clayton in Grime, 1983, p. 56)</td>
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<tr>
<th>26) Statement of the perceived difference</th>
<th>There is a perceived difference in the emphasis placed on the role of improviser for vocalists and instrumentalists.</th>
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<tr>
<td><strong>Representative quote</strong></td>
<td>“What a jazz vocalist is essentially, as far as the public is concerned, is very different from what a jazz player is. A jazz player, by nature, is expected to improvise from the get-go, on every gig, whereas the vocalist – who is one in a band of five, six or seven players – stands out and is asked to be the entertainer”. (Larry Lapin in Wadsworth-Walker, 2005, p. 122)</td>
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<tr>
<td>27) Statement of the perceived difference</td>
<td>There is a perceived difference between the level of motivation in vocalists and instrumentalists to improvise a solo when performing.</td>
</tr>
<tr>
<td><strong>Representative quotes</strong></td>
<td>“If you have a student who comes and says, ‘I’d like to do vocal jazz for a lifetime, for a living, or whatever,’ do you really?...Most students are not deeply motivated; they like singing because they got some applause in high school.” (Phil Mattson in Wadsworth-Walker, 2005, p. 226); “Our model suggests several such characteristics that may affect the quality of improvised music: prior experience in improvisation, cognitive and physical (motor) abilities, and interest and motivation.” (Eisenberg &amp; Thompson, 2003, pp. 290–291)</td>
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<tr>
<td>28) Statement of the perceived difference</td>
<td>There is a perceived difference between the emphasis placed on vocalists and instrumentalists to be entertainers.</td>
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<tr>
<td>Representative quote</td>
<td>“People want to experience an event. A full event, not just music, not just somebody soloing, not just three or four cats up on stage interacting. They want an event. If you’re the singer and you’re the bandleader, you are the event, baby. So be the event.” (Elling, 2000)</td>
</tr>
<tr>
<td>29) Statement of the perceived difference</td>
<td>There is a perceived difference between the level of technical proficiency necessary for jazz vocalists and instrumentalists to be successful jazz musicians.</td>
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<tr>
<td>Representative quotes</td>
<td>“Because it resides within the bodies [sic] borders, [the voice] can come closer to expressing a person’s innermost feelings than an external, inanimate object. In fact, they equate the voice with emotional utterance. By contrast, instruments necessarily channel and mediate expression; instead, they are associated with technical prowess.” (Pellegrinelli, 2005, p. 369); “Students often ask me if you need to have a trained voice. And the answer is, that the wonderful thing about jazz singing is that you do it with what you’ve got. So anybody can do it, who can do it. (Joy Kane in Grime, 1983, p. 126); “…virtually all jazz [instrumentalists] have incredible technique; you just can’t get anywhere in this music unless you have some kind of virtuosity...on at least one instrument.” (Friedwald, 1992, p. 344)</td>
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<tr>
<td><strong>30)</strong> Statement of the perceived difference</td>
<td>There is a perceived association between gender and whether the musician is a vocalist or an instrumentalist.</td>
</tr>
<tr>
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<tr>
<td>Representative quotes</td>
<td>“The fact was that a pleasant physical presence and a good voice could be strong selling points on the bandstand, as Count Basie quickly realized. Furthermore, a knowledgeable singer, unlike an equally skilled woman instrumentalist, ruffled no feathers about the propriety of her role, posed no threat to male players by way of increased competition for jobs, and did not disturb the status quo by invading what was regarded as male musical turf.” (Dahl, 1984, p. 124); “It seems more than coincidental that women in jazz have remained confined by this role [as vocalist] in which natural and intuitive talents take precedence over those which can be formally learned, and that stereotypes focus on singers supposed lack of knowledge and skill.” (Pellegrinelli, 2005, p. 93)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>31)</strong> Statement of the perceived difference</th>
<th>There is a perceived difference between the amount of performance opportunities at jazz venues for jazz vocalists and instrumentalists.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Representative quotes</td>
<td>“The wider acceptance of singers in venues that do not cater to jazz as coupled with their occasionally exclusion from more traditional venues reflects the duality of the singers’ popular-yet-marginal status.” (Pellegrinelli, 2005, p. 336); “My bassist Rob Amster was also in that band. Ed asked me to sit in one night. And, apparently in the eight or nine years life span of that band, they had had a different guest artist every week, but they had never had a singer. So Lawrence was like “Who’s this jug? We’re going to have a singer? What’s that about?” (Kurt Elling in Nemeyer, 2008b, p. 157)</td>
</tr>
<tr>
<td>Concurring references</td>
<td>Campbell, 1997, p. 70; Janet Lawson in Gourse, 2001a, p. 343; Carol Sloane in Enstice &amp; Stockhouse, 2004, p. 308</td>
</tr>
<tr>
<td>Statement of the perceived difference</td>
<td>There is a perceived difference between the amount of apprenticeship opportunities for vocalists and instrumentalists.</td>
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<td>----------------------------------------</td>
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<tr>
<td>Representative quote</td>
<td>“That may be one of the biggest disadvantages of being a vocalist: you aren’t as a rule hired by a leader as a side-person unless the gig calls specifically for a vocalist. Consequently it’s a challenge to gain the giggin experience that the average jazz instrumentalists gets, the period of ‘apprenticeship’ that young players typically spend working with an established leader. By and large, a vocalist must lead his or her own group in order to work.” <em>(Jazz Borla in <em>Jazz Improv</em>, 2006, p. 129)</em></td>
</tr>
<tr>
<td>33) Statement of the perceived difference</td>
<td>There is a perceived difference between the amount of opportunities for formal jazz education for vocalists and instrumentalists.</td>
</tr>
<tr>
<td>Representative quote</td>
<td>“What I see as a singer and an educator is that there seems to be a lot of jazz programs for instrumentalists, but there doesn’t seem to be many vocal programs.” <em>(Ellen Johnson in Pellegrinelli, 2005, p. 409)</em></td>
</tr>
<tr>
<td>34) Statement of the perceived difference</td>
<td>There is a perceived difference between the amount of jam session opportunities for vocalists and instrumentalists.</td>
</tr>
<tr>
<td>Representative quote</td>
<td>“Instrumentalists at all levels typically get together with other instrumentalists for jam sessions. Unfortunately, singers are rarely invited to these sessions, but perhaps this will change as more singers develop their improvisational skills to the same level as their instrumental counterparts.” <em>(Weir, 2003, p. 54)</em></td>
</tr>
<tr>
<td>35) Statement of the perceived difference</td>
<td>There is a perceived difference between the amount of performance opportunities for vocalists and instrumentalists when gender is considered.</td>
</tr>
<tr>
<td>------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Representative quotes</td>
<td>“Exclusion from this clubhouse environment makes it all but impossible for women to be seen as regulars on the jazz circuit.” (Watrous, 1994, p. 243); “And as long as women are kept off the bandstand, away from practice sessions, big-band work and all the other opportunities to learn their craft, they will remain second-class citizens in a music that should be open to all.” (Watrous, 1994, p. 243)</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>36) Statement of the perceived difference</th>
<th>There is a perceived physical difference in the composition and location of instruments and the vocal apparatus.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Representative quote</td>
<td>“There is another very important peculiarity that distinguishes you, as a singer, from instrumentists...Singers’ instruments are their bodies...singers find that almost every physical skill that is part of their technique is hidden from view...Your only recourse is to turn inward, to listen, to feel, and to remember your kinaesthetic responses so that you can repeat them at will.” (Emmons &amp; Thomas, 1998, p. 183)</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>37) Statement of the perceived difference</th>
<th>There is a perceived difference in the relevance of the 12 key approach for vocalists and instrumentalists.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Representative quote</td>
<td>“Well, the instrumentalists have to do the blues in all twelve keys. The vocalists don’t need to: if they can do it in one, they can do it in twelve.” (Larry Lapin in Greenagel, 1997, p. 40)</td>
</tr>
<tr>
<td>Concurring references</td>
<td>Berliner, 1994, pp. 82, 116, 117; Bob Stoloff in Wadsworth-Walker, 2005, p. 188; Botana &amp; Correa, 1993; Coker, 1987, p. 16</td>
</tr>
</tbody>
</table>
# The Conversion of 37 Variables into Survey Questions

<table>
<thead>
<tr>
<th>Variable Name and Number</th>
<th>Survey Question Stem and Question Number</th>
</tr>
</thead>
</table>
| (1) Amount of music training | 11. In your experience, which musician has had more music lessons prior to studying jazz as an adult?  
26. Have you previously or are you currently studying jazz as an adult at a college, university, tertiary course, workshop or with a private music teacher in Australia? |
| (2) Content of music training | 15. In your experience, which musician uses music theory more frequently when learning music?  
23. In your experience, which musician uses imitation more frequently when learning music? |
| (3) Amount of listening to jazz | 14. In your experience, which musician has listened to more jazz prior to studying jazz as an adult?  
27m) Attending jazz performances |
| (4) Amount of improvisation experiences prior to tertiary education | 13. In your experience, which musician has had more experience improvising jazz prior to studying it as an adult? |
| (5) Amount of difficulty in crossing over genres | 12. In your experience, which musician has greater difficulty crossing over from classical technique to jazz? |
| (6) Educational background training of teachers | 44. Have you ever taught a vocalist jazz improvisation?  
45. What was the educational setting in which you taught a vocalist jazz improvisation?  
50. Have you ever taught or been taught vocal jazz improvisation?  
51. What was the educational setting in which you taught or were taught vocal jazz improvisation? |
| (7) Appropriateness of educational improvisation resources | 46. In your experience, to whom are resources marked suitable "for instrumentalists and vocalists" better suited? |
| (8) Standard of music literacy | 15. In your experience, which musician uses music theory more frequently when learning music?  
23. In your experience, which musician uses imitation more frequently when learning music? |
| (9) Amount of knowledge of musical referents & procedures | 15. In your experience, which musician uses music theory more frequently when learning music?  
23. In your experience, which musician uses imitation more frequently when learning music?  
27a) Learning new jazz repertoire  
27b) Playing/singing scales  
27d) Transcribing jazz  
27e) Playing/singing jazz patterns or motifs |
<table>
<thead>
<tr>
<th>Variable Name and Number</th>
<th>Survey Question Stem and Question Number</th>
</tr>
</thead>
</table>
| (9) ...continued         | 27f) Listening to or watching a recorded jazz performance  
27g) Imitating an improvised jazz solo  
27k) Performing jazz  
27l) Arranging and/or transposing jazz music  
28f) Is it helpful to your work as a jazz instrumentalist/singer to learn the same song in all 12 keys? |
| (10) Approach to individual music practice | 17. In your experience, which musician has the need for repetitive practice more strongly enforced when learning music?  
27c) Improvising instrumental/scat jazz solos  
27j) Practising with pre-recorded or computer generated jazz play-a-longs/backing tracks  
28f) Is it helpful to your work as a jazz instrumentalist/singer to learn the same song in all 12 keys? |
| (11) Sense of musical immediacy | 7. Do you usually find it quicker to learn a new song by listening and imitating rather than reading the music? |
| (12) Amount of time spent practicing improvising | 27j) Practising with pre-recorded or computer generated jazz play-a-longs/backing tracks  
27c) Improvising instrumental/scat jazz solos |
| (13) Amount of deposits into the ideas bank | 27a) Learning new jazz repertoire  
27b) Playing/singing scales  
27c) Improvising instrumental/scat jazz solos  
27d) Transcribing jazz  
27e) Playing/singing jazz patterns or motifs  
27f) Listening to or watching a recorded jazz performance  
27g) Imitating an improvised jazz solo  
27h) Participating in a jazz jam session  
27i) Rehearsing with a jazz band  
27j) Practising with pre-recorded or computer generated jazz play-a-longs/backing tracks  
27k) Performing jazz  
27l) Arranging and/or transposing jazz music  
27m) Attending jazz performances  
14. In your experience, which musician has listened to more jazz prior to studying jazz as an adult? |
| (14) Preference for generating idea when improvising | 36. When you improvise, where do your ideas come from?  
37. When you improvise, which two sources of ideas do you use most frequently? |
<table>
<thead>
<tr>
<th>Variable Name and Number</th>
<th>Survey Question Stem and Question Number</th>
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</thead>
<tbody>
<tr>
<td>(14) continued</td>
<td>38d) hear musical ideas in your head while improvising?</td>
</tr>
<tr>
<td></td>
<td>38e) find your muscles seem to perform musical patterns automatically when improvising?</td>
</tr>
<tr>
<td></td>
<td>39. Which statement best represents how you first began improvising?</td>
</tr>
<tr>
<td>(15) Level of self judgement experienced while improvising</td>
<td>38b) make judgments about how good your solo is while improvising?</td>
</tr>
<tr>
<td>(16) Level of risk taken to improvise</td>
<td>19. In your experience, which musician takes the greater personal risk by improvising?</td>
</tr>
<tr>
<td>(17) Amount of motor feedback</td>
<td>30. Some vocalists move their hands when they sing as if they are trying to place the pitch of a note precisely. Have you observed vocalists (yourself or others) doing this?</td>
</tr>
<tr>
<td></td>
<td>43. Rank from most frequent to least frequent the method you use to identify the name of a note you are playing while improvising.</td>
</tr>
<tr>
<td>(18) Approach to pitch orientation</td>
<td>8. When you sing, how do you identify the name of the note you are singing? Select all that apply.</td>
</tr>
<tr>
<td></td>
<td>9. How do you find your starting note when you're going to sing a familiar jazz song with accompaniment? Select all that apply.</td>
</tr>
<tr>
<td></td>
<td>28f) Is it helpful to your work as a jazz instrumentalist/singer to learn the same song in all 12 keys?</td>
</tr>
<tr>
<td></td>
<td>38c) know the name of the note you're on while improvising?</td>
</tr>
<tr>
<td></td>
<td>42. While you are improvising, do you ever identify the name of a note you are playing?</td>
</tr>
<tr>
<td></td>
<td>49. Which method do you use most to help pitch notes when you are improvising?</td>
</tr>
<tr>
<td>(19) Use of audiation during skill development</td>
<td>38d) hear musical ideas in your head while improvising?</td>
</tr>
<tr>
<td>(20) Priority placed on lyrics</td>
<td>28e) Do you have to emotionally identify or be comfortable with the lyrics of a song in order to perform it?</td>
</tr>
<tr>
<td></td>
<td>41. While you are playing a song with lyrics, how frequently do the words affect your musical choices?</td>
</tr>
<tr>
<td>(21) Capacity to connect with an audience via words</td>
<td>28a) Is it usually important to you to communicate the lyrics of a song when you are playing/singing?</td>
</tr>
<tr>
<td></td>
<td>31. Do you think vocalists have a stronger connection with audiences than instrumentalists because they sing lyrics?</td>
</tr>
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<td></td>
<td>33. While you are playing/singing in a jazz performance, how frequently do you make eye contact with the audience?</td>
</tr>
<tr>
<td>(22) Desire for expressive integrity</td>
<td>28e) Do you have to emotionally identify or be comfortable with the lyrics of a song in order to perform it?</td>
</tr>
<tr>
<td>(23) Relevance of scat syllable conventions</td>
<td>52. Do you think there are conventions influencing why some scat syllables are used and not others?</td>
</tr>
<tr>
<td>Survey Question Stem and Question Number</td>
<td>Variable Name and Number</td>
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<tr>
<td>18. In your experience, which musician places more emphasis on their personal appearance for a performance?</td>
<td>(24) Need for personal scat vocabulary</td>
</tr>
<tr>
<td>19. Historically, how has emphasis on the role of interpreter and improviser influenced the evolution of jazz music?</td>
<td>(25) Emphasis on visual display</td>
</tr>
<tr>
<td>20. In your experience, which musician is more likely to perform the improvised solo in a jazz song?</td>
<td>(26) Emphasis on role when gender considered</td>
</tr>
<tr>
<td>21. While you are playing/singing in a jazz performance, how frequently do you make eye contact with the audience?</td>
<td>(27) Level of motivation to communicate</td>
</tr>
<tr>
<td>22. In your experience, which musician has access to the most jazz venues where they can perform?</td>
<td>(28) Expectation to entertain</td>
</tr>
<tr>
<td>23. Which best describes how you see the role of the jazz vocalist?</td>
<td>(29) Level of technical prowess</td>
</tr>
<tr>
<td>24. Do you think being a vocalist reduces the number of opportunities to improvise compared to instrumentalists?</td>
<td>(30) Emphasis on roles when gender considered</td>
</tr>
<tr>
<td>25. How did you develop your scat syllable vocabulary?</td>
<td>(31) Amount of performance opportunities</td>
</tr>
<tr>
<td>26. Which writer said women will always have their appearance judged when performing?</td>
<td>(32) Amount of performance opportunities</td>
</tr>
<tr>
<td>27. Is it usually important to you to communicate the lyrics of a song when you are playing/singing?</td>
<td>(33) Level of technical prowess</td>
</tr>
<tr>
<td>28. Do you think being a vocalist reduces the number of opportunities to improvise compared to instrumentalists?</td>
<td>(34) Emphasis on roles when gender considered</td>
</tr>
<tr>
<td>29. Historically, was the vocalist's role to be visually appealing to an audience? In your experience, is it still a function today?</td>
<td>(35) Amount of performance opportunities</td>
</tr>
<tr>
<td>30. Do you think a jazz instrumentalist or singer should be able to improvise at any time during a performance?</td>
<td>(36) Amount of performance opportunities</td>
</tr>
<tr>
<td>31. While you are playing/singing in a jazz performance, how frequently do you make eye contact with the audience?</td>
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<td>33. While you are playing/singing in a jazz performance, how frequently do you make eye contact with the audience?</td>
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<td>37. Which best describes how you see the role of the jazz vocalist?</td>
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<tr>
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<td>40. Which best describes how you see the role of the jazz vocalist?</td>
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<tr>
<td>43. Which best describes how you see the role of the jazz vocalist?</td>
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</tr>
<tr>
<td>48. Do you think being a vocalist reduces the number of opportunities to improvise compared to instrumentalists?</td>
<td>(54) Expectation to entertain</td>
</tr>
<tr>
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<td>Survey Question Stem and Question Number</td>
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<td>-------------------------------------------</td>
</tr>
<tr>
<td>(31) continued</td>
<td>instrumentalis?</td>
</tr>
<tr>
<td>(32) Amount of apprenticeship opportunities</td>
<td>24. In your experience, which musician has more opportunity to be apprenticed by playing/singing in jazz groups?</td>
</tr>
</tbody>
</table>
| (33) Amount of jazz education opportunities | 26. Have you previously or are you currently studying jazz as an adult at a college, university, tertiary course, workshop or with a private music teacher in Australia?  
24. Have you ever taught a vocalist jazz improvisation?  
45. What was the educational setting in which you taught a vocalist jazz improvisation?  
50. Have you ever taught or been taught vocal jazz improvisation?  
51. What was the educational setting in which you taught or were taught vocal jazz improvisation? |
| (34) Amount of jam session opportunities | 16. In your experience, which musician has more opportunities to participate in jazz jam sessions?  
27h) Participating in a jazz jam session |
| (35) Amount of performance opportunities when gender is considered | 5. Please indicate your gender.  
47. Do you think being female reduces the number of opportunities to improvise? |
| (36) Physical difference in the composition and location of the vocal instrument | 12. In your experience, which musician has greater difficulty crossing over from classical technique to jazz?  
30. Some vocalists move their hands when they sing as if they are trying to place the pitch of a note precisely. Have you observed vocalists (yourself or others) doing this?  
43. Rank from most frequent to least frequent the method you use to identify the name of a note you are playing while improvising.  
49. Which method do you use most to help pitch notes when you are improvising? |
| (37) Relevance of the 12 key approach | 28f) Is it helpful to your work as a jazz instrumentalist/singer to learn the same song in all 12 keys? |
| Preparation for Phase 2 | 54. Please give the name of anyone you know who teaches vocal jazz improvisation in Australia. Any additional contact details would be appreciated. These teachers may be contacted and asked if they wish to participate in the latter stages of this research. |
| Auxiliary Question: Difference in achievement | 10. In your experience, which musician is usually better at jazz improvisation? |
Investigating Jazz Education in Australia

Thank you for your interest in participating in a survey of Australian jazz instrumentalists and vocalists. It will take about 15-20 minutes to complete. To participate, you must be a jazz instrumentalist or vocalist who meets specific criteria.

Please select your answer by ticking the appropriate box.

Are you 18 years or older? .................................................................................................................................................................................✓ YES  ❑ NO

Do you currently live in Australia? .................................................................................................................................................................................✓ YES  ❑ NO

Have you performed in public at least once over the past 6 months as a jazz vocalist or instrumentalist? ..................................................✓ YES  ❑ NO

If you answered ‘yes’ to all three questions above, you satisfy the criteria for participation and can proceed. If you answered ‘no’ to any of the questions your survey can not be included in the study.

The survey is also available in an online version. Please only complete the survey once, either online or this print version. You may prefer to access the online version at: http://tiny.cc/JazzSurvey

This research is being conducted through Griffith University so it is essential we have your informed consent to participate before starting. Please read the following page outlining the study before choosing whether you wish to participate.
Informed Consent

WHAT IS BEING RESEARCHED? This survey is being conducted to investigate the educational differences which distinguish improvising jazz vocalists from instrumentalists. Adult, jazz instrumentalists and vocalists currently performing and residing in Australia are invited to participate.

WHY IS THIS BEING RESEARCHED? The aim of the research is to gain insight into the current practices of educating jazz vocalists in improvisation in Australia. The survey is part of doctoral research at the Queensland Conservatorium, Griffith University. It will contribute to the thesis of a PhD candidate.

WHO IS CONDUCTING THE RESEARCH? The research is being conducted by PhD candidate Wendy Hargreaves, under the supervision of Dr Scott Harrison at the Queensland Conservatorium of Music, Griffith University.

INVOLVEMENT: This phase of research involves answering a survey.

PARTICIPATION: Your participation in the survey is voluntary. You are free to withdraw at anytime. Withdrawal will not incur any penalty or comment.

ANONYMITY: The survey is anonymous. Your responses can not be identified.

RISKS: Some participants may be uncomfortable in reflecting on their practices. All participants have the right to debrief with the researcher if required and may withdraw from the study at any time without explanation.

BENEFITS: Your participation in the survey will offer the researcher insight into the current trends, practices and perceptions of jazz education in Australia. By identifying differences between the education of improvising instrumentalists and vocalists, future programs can be tailored to be more effective for vocalists, who currently trail in this field.

QUESTIONS/FURTHER INFORMATION: Griffith University conducts research in accordance with the National Statement on the Ethical Conduct of Human Research (2007). If you have any concerns or complaints concerning the manner in which the research project is conducted, they may be given to the researcher Wendy Hargreaves, Wendy.Hargreaves@student.griffith.edu.au, the research supervisor Dr Scott Harrison, Scott.Harrison@griffith.edu.au or if an independent person is preferred, you can contact the Manager, Research Ethics on (07) 3735 5585 or research-ethics@griffith.edu.au.

RESULTS: Results will be provided through conference presentations, publications and feedback to participants on request.

YOUR CONSENT:
I understand that my involvement in this research will include completion of the following survey.
I understand that my participation in this research is voluntary.
I understand that I am free to withdraw at any time, without comment or penalty.
I have had any questions answered to my satisfaction.
I understand that if I have any additional questions I can contact the researcher.
I understand the risks involved.
I understand that there will be no direct benefit to me from my participation in this research.
I understand that I can contact the Manager, Research Ethics, at Griffith University Human Research Ethics Committee on (07) 3735 5585 or research-ethics@griffith.edu.au if I have any concerns about the ethical conduct of the project.

If you continue, you are deemed to have consented to participate in the survey.
**SECTION A: For all jazz instrumentalists and vocalists**

*Please answer by ticking the appropriate box or column.*

1. Please indicate your gender ....................................................................
   - MALE
   - FEMALE

2. Do you consider yourself primarily a vocalist or instrumentalist? ............
   - VOCALIST
   - INSTRUMENTALIST
   (If you consider yourself to be equally both, please select the one you developed first, then answer all questions from that perspective.)
   If you ticked instrumentalist, please identify your primary instrument: ________________________

3. Tick the appropriate column. **In your experience, which musician**......

<table>
<thead>
<tr>
<th></th>
<th>INSTRUMENTALIST</th>
<th>VOCALIST</th>
<th>NEITHER</th>
<th>DON'T KNOW</th>
</tr>
</thead>
<tbody>
<tr>
<td>.....is usually better at jazz improvisation?</td>
<td></td>
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<tr>
<td>.....has had more music lessons prior to studying jazz as an adult?</td>
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<tr>
<td>.....has greater difficulty crossing over from classical technique to jazz?</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>.....has had more experience improvising jazz prior to studying it as an adult?</td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>.....has listened to more jazz prior to studying jazz as an adult?</td>
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<tr>
<td>.....uses music theory more frequently when learning music?</td>
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<td>.....has more opportunities to participate in jazz jam sessions?</td>
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<tr>
<td>.....has the need for repetitive practice more strongly enforced when learning music?</td>
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<td>.....places more emphasis on their personal appearance for a performance?</td>
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<tr>
<td>.....takes the greater personal risk by improvising?</td>
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<td>.....requires greater technical proficiency to be a successful jazz musician?</td>
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<td>.....has more access to jazz venues where they can perform?</td>
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<tr>
<td>.....uses imitation more frequently when learning music?</td>
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<tr>
<td>.....has more opportunity to be apprenticed by playing/singing in jazz groups?</td>
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</tbody>
</table>
4. Which word do you think best describes the act of making changes to the rhythm or melody of a jazz song during a live performance but keeping the composer’s original tune recognisable to an audience? .......❑ INTERPRETATION ❑ IMPROVISATION

5. Have you previously or are you currently studying jazz as an adult at a college, university, tertiary course, workshop or with a private music teacher in Australia? ❑ NO ❑ YES If yes, please specify where / which private teacher:____________________
_________________________________________________________________________________________________________________
_________________________________________________________________________________________________________________

6. Tick the column to show how much time you have spent on the following activities over the past week.

<table>
<thead>
<tr>
<th>Activity</th>
<th>0 minutes</th>
<th>1 - 59 mins</th>
<th>1 - 3 hours</th>
<th>More than 3 hours</th>
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<tr>
<td>…Playing/singing scales</td>
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<tr>
<td>…Improvising instrumental/scat jazz solos</td>
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<tr>
<td>…Transcribing jazz</td>
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<td>…Imitating an improvised jazz solo</td>
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<tr>
<td>…Performing jazz</td>
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<tr>
<td>…Arranging and/or transposing jazz music</td>
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<tr>
<td>…Attending jazz performances</td>
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</tbody>
</table>
Tick the appropriate column.

<table>
<thead>
<tr>
<th></th>
<th>YES</th>
<th>NO</th>
<th>DON'T KNOW</th>
</tr>
</thead>
<tbody>
<tr>
<td>7. Is it usually important to you to communicate the lyrics of a song when you are playing/singing?</td>
<td></td>
<td></td>
<td>28a</td>
</tr>
<tr>
<td>8. Are you generally motivated to improvise an instrumental/scat solo when performing?</td>
<td></td>
<td></td>
<td>28b</td>
</tr>
<tr>
<td>9. Do you think being able to improvise is part of what makes someone a ‘real jazz musician’?</td>
<td></td>
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<td>28c</td>
</tr>
<tr>
<td>10. Do you think a jazz instrumentalist should be able to improvise a solo if requested during a performance?</td>
<td></td>
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<td>28d</td>
</tr>
<tr>
<td>11. Do you have to emotionally identify or be comfortable with the lyrics of a song in order to perform it?</td>
<td></td>
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<td>28e</td>
</tr>
<tr>
<td>12. Historically one function of the vocalist was to be visually appealing to an audience. In your experience, is it still a function today?</td>
<td></td>
<td></td>
<td>29</td>
</tr>
<tr>
<td>13. Some vocalists move their hands when they sing as if they are trying to place the pitch of a note precisely. Have you observed vocalists (yourself or others) doing this?</td>
<td></td>
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<td>30</td>
</tr>
<tr>
<td>14. Do you think vocalists have a stronger connection with audiences than instrumentalists because they sing lyrics?</td>
<td></td>
<td></td>
<td>31</td>
</tr>
<tr>
<td>15. One writer said women will always have their appearance judged when performing. Have you observed this in your experience as a jazz instrumentalist or singer?</td>
<td></td>
<td></td>
<td>32</td>
</tr>
<tr>
<td>16. Is it helpful to your work as a jazz instrumentalist/singer to learn the same song in all 12 keys?</td>
<td></td>
<td></td>
<td>28f</td>
</tr>
<tr>
<td>17. Do you think a jazz vocalist should be able to improvise a scat solo if requested during a performance?</td>
<td></td>
<td></td>
<td>28g</td>
</tr>
<tr>
<td>18. While you are playing/singing in a jazz performance, how frequently do you make eye contact with the audience?</td>
<td></td>
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<td>33</td>
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<tr>
<td></td>
<td>CONSTANTLY</td>
<td>FREQUENTLY</td>
<td>HALF THE TIME</td>
</tr>
<tr>
<td>19. Which best describes how you see the role of the jazz vocalist?</td>
<td></td>
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<td>34</td>
</tr>
<tr>
<td></td>
<td>ARTIST</td>
<td>ENTERTAINER</td>
<td>NEITHER ARTIST NOR ENTERTAINER</td>
</tr>
<tr>
<td>20. Do you improvise instrumental/scat solos in public jazz performances?</td>
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<td></td>
<td>35</td>
</tr>
<tr>
<td></td>
<td>YES</td>
<td>NO</td>
<td>If yes, proceed to Section B. If no, go to Section C for instrumentalists or Section D for vocalists.</td>
</tr>
</tbody>
</table>
SECTION B: For improvisers of jazz instrumental or scat solos

Only answer this section if you ticked ‘yes’ in Question 20. If you ticked ‘no’, proceed to Section C for instrumentalists or D for vocalists.

21. Tick all that apply. When you improvise, where do your ideas come from?
   - I don’t know
   - my fingers/voice perform patterns automatically
   - the melody
   - imitating someone or something else
   - the rhythm
   - deliberate strategies e.g. sequencing, jumping intervals, repetition with variation, augmentation etc..
   - my knowledge of the harmony
   - listening to the accompanying musicians
   - Other. Please specify__________________________________________________________
   - spontaneous tunes I hear in my head ____________________________________________

22. Please examine the items you ticked in the Question 20. Circle two items above to show which occur most frequently for you.

23. Tick the appropriate column. How often do you……

<table>
<thead>
<tr>
<th></th>
<th>CONSTANTLY</th>
<th>FREQUENTLY</th>
<th>HALF THE TIME</th>
<th>SOMETIMES</th>
<th>NEVER</th>
</tr>
</thead>
<tbody>
<tr>
<td>…improvise an instrumental/scat solo in jazz performances?</td>
<td></td>
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<tr>
<td>…make judgements about how good your solo is while improvising?</td>
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<tr>
<td>…know the name of the note you’re on while improvising?</td>
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<tr>
<td>…hear musical ideas in your head while improvising?</td>
<td></td>
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<tr>
<td>…find your muscles seem to perform musical patterns automatically when improvising?</td>
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</tbody>
</table>

24. Tick one only. Which statement best represents how you first began improvising?
   - I picked notes that were likely to sound good because I knew they were in the chord or scale.
   - I used my ear to play/sing notes that sounded good to me without knowing the chord or scale.
   - Neither of the above statements.

**Instrumentalists proceed to Section C. Vocalists go to Section D.**
**SECTION C: For jazz instrumentalists**

*Only answer this section if you ticked 'instrumentalist' in Question 2. If you ticked 'vocalist' in Question 2, proceed to Section D.*

**25.** Please give the name of anyone you know who teaches **vocal** jazz improvisation in Australia. Any additional contact details would be appreciated. These teachers may be contacted and asked if they wish to participate in the latter stages of this research. ________________________________________________________________________________________________
________________________________________________________________________________________________________

**26.** Do you improvise instrumental solos?  

☐ YES  ☐ NO

*If yes, please continue. If no, you have completed the survey.*  

*Please use the attached reply paid envelope to post your survey back to the researcher.*

**27.** While you are playing a song with lyrics, how frequently do the words affect your musical choices?  

☐ CONSTANTLY  ☐ FREQUENTLY  ☐ HALF THE TIME  ☐ SOMETIMES  ☐ NEVER
28. While you are improvising, do you ever identify the name of a note you are playing?

❑ NO

❑ YES  If yes, rank in order of 1 - 4, with (1) being the most frequent, which methods you use.

Rank only the methods you use.

RANK❑.........Seeing the position of my hands/fingers tells me the name of the note

RANK❑.........Touching and feeling the instrument tells me the name of the note

RANK❑.........Sensing how far I’ve stretched my hands or other muscles tells me the name of the note

RANK❑.........Hearing the notes I’m playing tells me the name of the note

29. Have you ever taught a vocalist jazz improvisation?

❑ NO  ❑ YES  If yes, what was the educational setting? Tick all that apply.

❑ a private lesson  ❑ a jazz combo or jazz band
❑ a group of vocalists  ❑ I taught improvisation on an instrument instead of voice
❑ a group with vocalists & instrumentalists  ❑ Other. Please specify _______________________________
❑ a master class
❑ a workshop

Instrumentalists, you have completed the survey. Thank you.

Please use the attached reply paid envelope to post your survey back to the researcher.
SECTION D: For jazz vocalists

Only answer this section if you ticked 'vocalist' in Question 2.

30. Do you usually find it quicker to learn a new song by listening and imitating rather than reading the music?
   ❑ YES  ❑ NO  ❑ I NEVER LEARN SONGS BY READING MUSIC

31. Tick all that apply. When you sing, how do you identify the name of the note you are singing?

   I use perfect pitch ❑ I can’t identify it
   ❑ I read the music   ❑ I don’t identify it because I don’t need to
   ❑ I use solfa then calculate the name ❑ I don’t know the name of the note but I know where
   ❑ I calculate the interval from another known pitch it fits in the chord
   ❑ I ask an instrumentalist what it is ❑ Other. Please specify _____________________

32. Tick all that apply. How do you find your starting note when you’re going to sing a familiar jazz song with accompaniment?

   ❑ an instrument plays the starting note for me
   ❑ an instrument plays a chord and I pick the note from the chord
   ❑ having heard the opening note or chord, I use solfa, scale degrees or intervals to calculate where to start
   ❑ I use perfect pitch
   ❑ I read the music and calculate the distance from a known pitch an instrument plays
   ❑ I’m not sure how I find the starting note. It’s subconscious.
   ❑ Other. Please specify________________________________________________________
33. Please give the name of anyone you know who teaches vocal jazz improvisation in Australia. Any additional contact details would be appreciated. These teachers may be contacted and asked if they wish to participate in the latter stages of this research. 

________________________________________________________________________________________________________________________

34. Do you improvise scat solos? 
- ❑ YES
- ❑ NO  If yes, please continue. If no, you have completed the survey.
Please use the attached reply paid envelop to post your survey back to the researcher.

35. Do you think being female reduces the number of opportunities to improvise?
- ❑ YES
- ❑ NO
- ❑ UNABLE TO COMMENT

36. Do you think being a vocalist reduces the number of opportunities to improvise compared to instrumentalists?
- ❑ DON'T KNOW
- ❑ NO
- ❑ YES  If yes, please explain why?

________________________________________________________________________________________________________________________

37. Tick which method you use most to help pitch notes when you are improvising.
- ❑ Hearing the notes I’m singing helps me pitch the notes I want
- ❑ Sensing how far I’ve moved the muscles of my voice helps me pitch the notes I want

38. In your experience, to whom are resources marked suitable “for instrumentalists and vocalists” better suited?
- ❑ INSTRUMENTALISTS
- ❑ VOCALISTS
- ❑ EQUALLY SUITED TO BOTH
- ❑ UNABLE TO COMMENT
39. Have you ever taught or been taught vocal jazz improvisation?

☐ NO  ☐ YES  If yes, what was the educational setting? Tick all that apply.

☐ a private lesson
☐ a group of vocalists
☐ a group with vocalists & instrumentalists
☐ a master class
☐ a workshop
☐ a jazz combo or jazz band
☐ I taught/was taught improvisation on an instrument instead of voice

☐ Other. Please specify ____________________________

☐ a master class                                   ________________________________________________

☐ a workshop          ________________________________________________

40. Do you think there are conventions influencing why some scat syllables are used and not others?

☐ YES  ☐ NO  ☐ UNABLE TO COMMENT

41. How did you develop your scat syllable vocabulary? Tick all that apply.

☐ I imitated syllables from other singers
☐ I imitated the sounds of instrumentalists
☐ I got the syllables from a book
☐ someone taught me some syllables
☐ someone taught me some conventions for syllables
☐ I made up my own syllables
☐ Other. Please specify_____________________________________

Thank you for completing the survey and being part of this research.

Please use the attached reply paid envelope to post your survey back to the researcher.
Investigating Jazz Education in Australia

Welcome

Thank you for your interest in participating in a survey of Australian jazz instrumentalists and vocalists. Your personal experience will help us understand how to improve jazz education.

The survey will take about 15-20 minutes to complete. It can only be completed in one sitting. You are free to withdraw from participating at anytime. Should you exit the survey part-way, you will not be able to resume it later.

This study is being conducted through Griffith University so it is essential we have your informed consent to participate before starting.

*You are invited to print this information page for your personal reference. Please use your print page option in your web browser.*
Informed Consent

Please read the following explanation of the research before consenting to participate.

WHAT IS BEING RESEARCHED?

This survey is being conducted to investigate the educational differences which distinguish improvising jazz vocalists from instrumentalists. Adult, jazz instrumentalists and vocalists currently performing and residing in Australia are invited to participate.

WHY IS THIS BEING RESEARCHED?

The aim of the research is to gain insight into the current practices of educating jazz vocalists in improvisation in Australia. The survey is part of doctoral research at the Queensland Conservatorium, Griffith University. It will contribute to the thesis of a PhD candidate.

WHO IS CONDUCTING THE RESEARCH?

The research is being conducted by PhD candidate Wendy Hargreaves, under the supervision of Dr Scott Harrison at the Queensland Conservatorium of Music, Griffith University.

INVolvement

This phase of research involves answering an online survey.

PARTicipation

Your participation in the survey is voluntary. You are free to withdraw at anytime. Withdrawal will not incur any penalty or comment.

ANonymity

The survey is anonymous. Your responses can not be identified. Your computer’s IP address will not be collected.

Risks

Some participants may be uncomfortable in reflecting on their practices. All participants have the right to debrief with the researcher if required and may withdraw from the study at any time without explanation.

Benefits

Your participation in the survey will offer the researcher insight into the current trends, practices and perceptions of jazz education in Australia. By identifying differences between the education of improvising instrumentalists and vocalists, future programs can be tailored to be more effective for vocalists, who currently trial in this field.

Questions/Further Information

Griffith University conducts research in accordance with the National Statement on the Ethical Conduct of Human Research (2007). If you have any concerns or complaints concerning the manner in which the research project is conducted, they may be given to the researcher Wendy Hargreaves, the research supervisor Dr Scott Harrison, or if an independent person is preferred, you can contact the Manager, Research Ethics on (07) or

Results

Results will be provided through conference presentations, publications and feedback to participants on request.

Your consent

I understand that my involvement in this research will include completion of the following online survey.
I understand that my participation in this research is voluntary.

I understand that I am free to withdraw at any time, without comment or penalty.

I have had any questions answered to my satisfaction.

I understand that if I have any additional questions I can contact the researcher.

I understand the risks involved.

I understand that there will be no direct benefit to me from my participation in this research.

I understand that I can contact the Manager, Research Ethics, at Griffith University Human Research Ethics Committee on (07) 3735 5585 or research-ethics@griffth.edu.au if I have any concerns about the ethical conduct of the project.

*If you select 'Continue', you are deemed to have consented to participate in the survey.*

---

**Investigating Jazz Education in Australia**

**Age Requirement**

To participate in the survey, you must meet specific criteria.

* 1. Are you 18 years or older?

   - [ ] Yes
   - [ ] No

---

**Investigating Jazz Education in Australia**

**Australian Residency**

* 2. Do you currently live in Australia?

   - [ ] Yes
   - [ ] No

---

**Investigating Jazz Education in Australia**

**Performing Jazz Instrumentalist or Vocalist**

* 3. Have you performed in public at least once over the past 6 months as a jazz vocalist or instrumentalist?

   - [ ] Yes
   - [ ] No
4. Have you completed this survey before?
   - Yes
   - No

Termination of Survey

Unfortunately you have not met the qualifying criteria for participation. The survey will not proceed. Thank you for your time.

Commencement of Survey

You have satisfied the criteria for participation.

Click on 'Continue' when you are ready to begin.

IMPORTANT

IMPORTANT NOTE

This survey is designed to help people from accidentally missing questions. If you press the 'Continue' button and nothing happens, scroll back up your page and look for error messages. You will not be able to proceed to the next page, until every question on the current page is answered.

An error message is red text that appears above any question requiring attention. There may be more than one error on a page.

Once the error has been rectified, you will be able to continue normally.
* 5. Please indicate your gender. (Click on the appropriate button)
  - Male
  - Female

* 6. Do you consider yourself primarily a vocalist or instrumentalist?
   (If you consider yourself to be equally both, please select the one you
devolved first, then answer all questions from that perspective.)
  - Vocalist
  - Instrumentalist. Please specify your primary instrument. (Type your answer in the box)
**Vocalists**

* 7. Do you usually find it quicker to learn a new song by listening and imitating rather than reading the music?

- Yes
- No
- I never learn songs by reading music

* 8. When you sing, how do you identify the name of the note you are singing? Select all that apply.

- I use perfect pitch
- I read the music
- I use solfa then calculate the name
- I calculate the interval from another known pitch
- I ask an instrumentalist what it is
- I can't identify it
- I don't identify it because I don't need to
- I don't know the name of the note but I know where it fits in the chord
- Other. Please specify.

* 9. How do you find your starting note when you're going to sing a familiar jazz song with accompaniment? Select all that apply.

- An instrument plays the starting note for me
- An instrument plays a chord and I pick the note from the chord
- Having heard the opening note or chord, I use solfa, scale degrees or intervals to calculate where to start
- I use perfect pitch
- I read the music and calculate the distance from a known pitch an instrument plays
- I'm not sure how I find the starting note. It's subconscious.
- Other. Please specify.
Investigating Jazz Education in Australia

Instrumentalists and Vocalists

* 10. In your experience, which musician is usually better at jazz improvisation?
   - Instrumentalist
   - Vocalist
   - Neither
   - Don’t know

* 11. In your experience, which musician has had more music lessons prior to studying jazz as an adult?
   - Instrumentalist
   - Vocalist
   - Neither
   - Don’t know

* 12. In your experience, which musician has greater difficulty crossing over from classical technique to jazz?
   - Instrumentalist
   - Vocalist
   - Neither
   - Don’t know

* 13. In your experience, which musician has had more experience improvising jazz prior to studying it as an adult?
   - Instrumentalist
   - Vocalist
   - Neither
   - Don’t know

* 14. In your experience, which musician has listened to more jazz prior to studying jazz as an adult?
   - Instrumentalist
   - Vocalist
   - Neither
   - Don’t know
15. In your experience, which musician uses music theory more frequently when learning music?
- Instrumentalist
- Vocalist
- Neither
- Don’t know

16. In your experience, which musician has more opportunities to participate in jazz jam sessions?
- Instrumentalist
- Vocalist
- Neither
- Don’t know

17. In your experience, which musician has the need for repetitive practice more strongly enforced when learning music?
- Instrumentalist
- Vocalist
- Neither
- Don’t know

18. In your experience, which musician places more emphasis on their personal appearance for a performance?
- Instrumentalist
- Vocalist
- Neither
- Don’t know

19. In your experience, which musician takes the greater personal risk by improvising?
- Instrumentalist
- Vocalist
- Neither
- Don’t know
Investigating Jazz Education in Australia

* 20. In your experience, which musician is more likely to perform the improvised solo in a jazz song?
   - Instrumentalist
   - Vocalist
   - Neither
   - Don't know

* 21. In your experience, which musician requires greater technical proficiency to be a successful jazz musician?
   - Instrumentalist
   - Vocalist
   - Neither
   - Don't know
* 22. In your experience, which musician has more access to jazz venues where they can perform?
   - Instrumentalist
   - Vocalist
   - Neither
   - Don’t know

* 23. In your experience, which musician uses imitation more frequently when learning music?
   - Instrumentalist
   - Vocalist
   - Neither
   - Don’t know

* 24. In your experience, which musician has more opportunity to be apprenticed by playing/singing in jazz groups?
   - Instrumentalist
   - Vocalist
   - Neither
   - Don’t know

* 25. Which word do you think best describes the act of making changes to the rhythm or melody of a jazz song during a live performance but keeping the composer's original tune recognisable to an audience?
   - Interpretation
   - Improvisation

* 26. Have you previously or are you currently studying jazz as an adult at a college, university, tertiary course, workshop or with a private music teacher in Australia?
   - No
   - Yes. Please specify at which institution, event or with which private teacher.
## Investigating Jazz Education in Australia

### 27. How much time have you spent on the following activities over the past week?

<table>
<thead>
<tr>
<th>Activity</th>
<th>0 Minutes</th>
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</tr>
<tr>
<td>Performing jazz</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arranging and/or transposing jazz music</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attending jazz performances</td>
<td></td>
<td></td>
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</tbody>
</table>
Investigating Jazz Education in Australia

Instrumentalists and Vocalists

* 28. Select the appropriate answer.

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
<th>Don't Know</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is it usually important to you to communicate the lyrics of a song when you are playing/singing?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Are you generally motivated to improvise an instrumental/scat solo when performing?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do you think being able to improvise is part of what makes someone a 'real jazz musician'?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do you think a jazz instrumentalist should be able to improvise a solo if requested during a performance?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do you have to emotionally identify or be comfortable with the lyrics of a song in order to perform it?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is it helpful to your work as a jazz instrumentalist/singer to learn the same song in all 12 keys?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do you think a jazz vocalist should be able to improvise a scat solo if requested during a performance?</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* 29. Historically one function of the vocalist was to be visually appealing to an audience. In your experience, is it still a function today?

  - Yes
  - No
  - Don't know

* 30. Some vocalists move their hands when they sing as if they are trying to place the pitch of a note precisely. Have you observed vocalists (yourself or others) doing this?

  - Yes
  - No
  - Don't know

* 31. Do you think vocalists have a stronger connection with audiences than instrumentalists because they sing lyrics?

  - Yes
  - No
  - Don't know
**32.** One writer said women will always have their appearance judged when performing. Have you observed this in your experiences as a jazz instrumentalist or singer?
- Yes
- No
- Don’t know

**33.** While you are playing/singing in a jazz performance, how frequently do you make eye contact with the audience?
- Constantly
- Frequently
- Half the time
- Sometimes
- Never

**34.** Which best describes how you see the role of the jazz vocalist?
- Entertainer
- Artist
- Neither entertainer nor artist

**35.** Do you improvise instrumental/scat solos in public jazz performances?
- Yes
- No
* 36. When you improvise, where do your ideas come from? Select all that apply.

☐ I don't know
☐ The melody
☐ The rhythm
☐ My knowledge of the harmony
☐ Listening to the accompanying musicians
☐ Spontaneous tunes I hear in my head
☐ My fingers/voice perform patterns automatically
☐ Imitating someone or something else
☐ Deliberate strategies e.g. sequencing, jumping intervals, repetition with variation, augmentation etc..

☐ Other. Please specify.

* 37. When you improvise, which two sources of ideas do you use most frequently? Select up to two answers.

☐ I don't know
☐ The melody
☐ The rhythm
☐ My knowledge of the harmony
☐ Listening to the accompanying musicians
☐ Spontaneous tunes I hear in my head
☐ My fingers/voice perform patterns automatically
☐ Imitating someone or something else
☐ Deliberate strategies e.g. sequencing, jumping intervals, repetition with variation, augmentation etc..

☐ Other. Please specify
* 38. How often do you...

<table>
<thead>
<tr>
<th>Statement</th>
<th>Never</th>
<th>Sometimes</th>
<th>Frequently</th>
<th>Constantly</th>
<th>Half the time</th>
</tr>
</thead>
<tbody>
<tr>
<td>...improvise an instrumental/scat solo in jazz performances?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>...make judgements about how good your solo is while improvising?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>...know the name of the note you’re on while improvising?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>...hear musical ideas in your head while improvising?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>...find your muscles seem to perform musical patterns automatically when improvising?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* 39. Which statement best represents how you first began improvising?

- I picked notes that were likely to sound good because I knew they were in the chord or scale.
- I used my ear to play/sing notes that sounded good to me without knowing the chord or scale.
- Neither of the above statements.

* 40. Which statement best describes you?

- I am primarily an improvising instrumentalist.
- I am primarily an improvising vocalist.

* 41. While you are playing a song with lyrics, how frequently do the words affect your musical choices?

- Constantly
- Frequently
- Half the time
- Sometimes
- Never

* 42. While you are improvising, do you ever identify the name of a note you are playing?

- Yes
- No
**43.** Rank from most frequent to least frequent the method you use to identify the name of a note you are playing while improvising. Select only those which you use.

<table>
<thead>
<tr>
<th>Method</th>
<th>Most frequent</th>
<th>Second frequent</th>
<th>Third frequent</th>
<th>Least frequent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seeing the position of my hands/fingers tells me the name of the note</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Touching and feeling the instrument tells me the name of the note</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sensing how far I've stretched my hands or other muscles tells me the name of the note</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hearing the notes I'm playing tells me the name of the note</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**44.** Have you ever taught a vocalist jazz improvisation?

- [ ] Yes
- [ ] No

**45.** What was the educational setting in which you taught a vocalist jazz improvisation? Select all that apply.

- [ ] Private lesson
- [ ] Workshop
- [ ] Group of vocalists
- [ ] Jazz combo or jazz band
- [ ] Group of vocalists and instrumentalists
- [ ] I taught a vocalist improvisation on an instrument instead of voice
- [ ] Master class
- [ ] Other. Please specify.
46. In your experience, to whom are resources marked suitable "for instrumentalists and vocalists" better suited?
- Instrumentalists
- Vocalists
- Equally suited to both
- Unable to comment

47. Do you think being female reduces the number of opportunities to improvise?
- Yes
- No
- Unable to comment

48. Do you think being a vocalist reduces the number of opportunities to improvise compared to instrumentalists?
- Don’t know
- No
- Yes. If yes, please explain why?

49. Which method do you use most to help pitch notes when you are improvising?
- Hearing the notes I’m singing helps me pitch the notes I want
- Sensing how far I’ve moved the muscles of my voice helps me pitch the notes I want

50. Have you ever taught or been taught vocal jazz improvisation?
- Yes
- No
**Improvising Vocalists**

* 51. What was the educational setting in which you taught or were taught vocal jazz improvisation? Select all that apply.

- [ ] Private lesson
- [ ] Group of vocalists
- [ ] Group of vocalists and instrumentalists
- [ ] Master class
- [ ] Workshop
- [ ] Jazz combo or jazz band
- [ ] I taught/was taught improvisation on an instrument instead of voice
- [ ] Other. Please specify.

* 52. Do you think there are conventions influencing why some scat syllables are used and not others?

- [ ] Yes
- [ ] No
- [ ] Unable to comment

* 53. How did you develop your scat syllable vocabulary? Select all that apply.

- [ ] I imitated syllables from other singers
- [ ] I imitated the sounds of instrumentalists
- [ ] I got the syllables from a book
- [ ] Someone taught me some syllables
- [ ] Someone taught me some conventions for syllables
- [ ] I made up my own syllables
- [ ] Other. Please specify.

**Teachers of Vocal Improvisation**

54. Please give the name of anyone you know who teaches vocal jazz improvisation in Australia. Any additional contact details would be appreciated. These teachers may be contacted and asked if they wish to participate in the latter stages of this research.
APPENDIX E

QUESTION PATHWAYS FOR THE ONLINE SURVEY UTILISING SKIP LOGIC

Question 1: Are you 18 years or older?
   Yes → Yes
   No → Terminate survey

Question 2: Do you currently live in Australia?
   Yes → Yes
   No → Terminate survey

Question 3: Have you performed in public at least once over the past 6 months as a jazz vocalist or instrumentalist?
   Yes → Yes
   No → Terminate survey

Question 4: Have you completed this survey before?
   No → No
   Yes → Terminate survey

Question 5: Please indicate your gender.
   Male → Male
   Female → Female

Question 6: Do you consider yourself primarily a vocalist or instrumentalist?
   Vocalist → Vocalist
   Instrumentalist → Instrumentalist

Questions 7-9

Questions 10-34

Question 35: Do you improvise instrumental/scat solos in public jazz performances?
   Yes → Yes
   No → No

Questions 36-39

Question 40: Which statement best describes you?
   Instrumentalist → Instrumentalist
   Vocalist → Vocalist

Questions 41-43

Question 44: Have you ever taught a vocalist jazz improvisation?
   Yes → Yes
   No → No

Question 45

Question 46-49

Question 50: Have you ever taught or been taught vocal jazz improvisation?
   Yes → Yes
   No → No

Questions 51-53

Question 54
Dear Jazz Performer

RE: A National Survey of Jazz Instrumentalists and Vocalists

I am writing from the Queensland Conservatorium of Music, Griffith University, to ask for your assistance in my PhD research in jazz education. My study is investigating the differences between how instrumentalists and vocalists learn to improvise. The results will help us understand how to effectively educate and develop jazz singers.

Phase one of the research involves surveying adult, performing jazz instrumentalists and vocalists in Australia. I am writing to invite you to contribute by completing an online survey. Your personal insight and experience would be valuable to the research.

If you would like to be involved please click on the link below to access the survey. Your response is voluntary and anonymous. IP addresses will not be collected.

http://tiny.cc/JazzSurvey

I hope you will consider participating in the survey. I recognise your time is valuable and sincerely appreciate all investments you make in the research.

If you know of any other Australian jazz instrumentalists or vocalists who may like to be part of the study, please forward this email to them. The more Australian jazz performers we have participating, the more informative the results become.

Yours sincerely

Wendy Hargreaves (PhD Candidate)
Queensland Conservatorium of Music
Griffith University
INVITATION LETTER TO JAZZ EDUCATORS TO PARTICIPATE IN THE SURVEY

Dear Jazz Educators and Performers

RE: A National Survey of Jazz Instrumentalists and Vocalists

I am writing from the Queensland Conservatorium of Music, Griffith University, to ask for your assistance in my PhD research in jazz education. My study is investigating the differences between how instrumentalists and vocalists learn to improvise. The results will help us understand how to effectively educate and develop jazz singers.

Phase one of the research involves surveying adult, performing jazz instrumentalists and vocalists in Australia. I am writing to ask if you would be happy to support this Queensland Conservatorium study by completing the online survey and forwarding this email to jazz students and colleagues. The personal insight and experience of all Australian jazz performers would be valuable to the research.

For those happy to be involved in the survey, please click on the link below to access it. Responses are voluntary and anonymous. IP addresses will not be collected.

http://tiny.cc/JazzSurvey

I hope you will consider participating in the survey. I recognise your time is valuable and sincerely appreciate all investments made in the research.

If you know of any other Australian jazz instrumentalists or singers who may like to be part of the study, please forward this email to them. The more Australian jazz performers we have participating, the more informative the results become.

Yours sincerely

Wendy Hargreaves (PhD Candidate)
Queensland Conservatorium of Music
Griffith University
APPENDIX H

INVITATION LETTER TO JAZZ ORGANISATIONS TO SUPPORT THE SURVEY

Dear Australian Jazz Organisations and Clubs

RE: A National Survey of Jazz Instrumentalists and Vocalists

I am writing from the Queensland Conservatorium of Music, Griffith University, to ask for your assistance in my PhD research in jazz education. My study is investigating the differences between how instrumentalists and vocalists learn to improvise. The results will help us understand how to effectively educate and develop jazz singers.

Phase one of the research involves surveying adult, performing jazz instrumentalists and vocalists in Australia. I am writing to ask if you would be happy to support this Queensland Conservatorium study by forwarding the invitation letter below to your email contact lists. The personal insight and experience of any Australian jazz performer we can reach would be valuable to the research. Alternatively you may like to publish the invitation or website address for the survey in your regular newsletter or on your website to raise awareness. I can also post you flyers advertising the survey if preferred.

As previously stated, the study will form the basis of a PhD thesis. There are no associated financial or commercial endeavours. The final submission of the thesis is not expected until November 2011 however I would be happy to supply your organisation at your request with a preliminary article discussing the points of interest arising from the survey results.

If you are happy to support jazz education in Australia through this research, please use the invitation letter below and copy and paste it into a new email for your contacts.

Yours sincerely

Wendy Hargreaves (PhD Candidate)
Queensland Conservatorium of Music
Griffith University

(Invitation letter below)
Invitation to All Jazz Performers Currently Living in Australia

RE: A National Survey of Jazz Instrumentalists and Vocalists

I am writing from the Queensland Conservatorium of Music, Griffith University, to ask for your assistance in my PhD research in jazz education. My study is investigating the differences between how instrumentalists and vocalists learn to improvise. The results will help us understand how to effectively educate and develop jazz singers.

Phase one of the research involves surveying adult, performing jazz instrumentalists and vocalists in Australia. I am writing to invite you to contribute by completing an online survey. Your personal insight and experience would be valuable to the research.

If you would like to be involved please click on the link below to access the survey. Your response is voluntary and anonymous. IP addresses will not be collected.

http://tiny.cc/JazzSurvey

I hope you will consider participating in the survey. I recognise your time is valuable and sincerely appreciate all investments you make in the research.

If you know of any other Australian jazz instrumentalists or vocalists who may like to be part of the study, please forward this email to them. The more Australian jazz performers we have participating, the more informative the results will become.

Yours sincerely

Wendy Hargreaves (PhD Candidate)
Queensland Conservatorium of Music
Griffith University
A National Survey of Jazz Instrumentalists and Vocalists

The Queensland Conservatorium, Griffith University, is conducting research into jazz education in Australia. The study will investigate the differences between how instrumentalists and vocalists learn to improvise. It will form the basis of a PhD thesis.

We would like to invite all jazz instrumentalists and vocalists currently residing and performing in Australia to participate in an online survey. The survey will take about 15 - 20 minutes to complete. It is voluntary and anonymous.

If you would like to participate, you can access the survey by typing the following address into your internet browser:

http://tiny.cc/JazzSurvey

The personal insight and experience of all jazz performers would be valuable to the research. The results will help us understand how to improve the effectiveness of jazz education in Australia. For further enquiries, email Wendy.Hargreaves@student.griffith.edu.au

Griffith University conducts research in accordance with the National Statement on Ethical Conduct in Human Research.

Wendy Hargreaves
Queensland Conservatorium of Music
APPENDIX J

GRIFFITH UNIVERSITY HUMAN RESEARCH ETHICS COMMITTEE

13-Mar-2008

Dear Dr Harrison

I write further to the additional information provided in relation to the conditional approval granted to your application for ethical clearance for your project "Identification of perceived, significant differences in the improvising jazz vocalist" (GU Ref No: QCM/03/08/HREC).

This is to confirm receipt of the remaining required information, assurances or amendments to this protocol.

Consequently, I reconfirm my earlier advice that you are authorised to immediately commence this research on this basis.

The standard conditions of approval attached to our previous correspondence about this protocol continue to apply.

Regards

Dr Gary Allen
Manager, Research Ethics
Office for Research
Bray Centre, Nathan Campus
Griffith University
ph: 3735 5585
fax: 3735 7994
e-mail: g.allen@griffith.edu.au
web:

Cc:

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Queensland Conservatorium

Dear

Thank you for your interest in participating in research conducted through the Queensland Conservatorium, Griffith University. It is essential we have your informed consent to be interviewed before proceeding. Please read the following page outlining the study before choosing whether you wish to participate.

Informed Consent

WHAT IS BEING RESEARCHED? This interview is being conducted to explore the educational differences which distinguish improvising jazz vocalists from instrumentalists.

WHY IS THIS BEING RESEARCHED? The aim of the research is to gain insight into the current practices of educating jazz vocalists in improvisation in Australia. The interview is part of doctoral research at the Queensland Conservatorium, Griffith University. It will contribute to the thesis of a PhD candidate.

WHO IS CONDUCTING THE RESEARCH? The research is being conducted by PhD candidate Wendy Hargreaves, under the supervision of Dr Scott Harrison at the Queensland Conservatorium of Music, Griffith University.

INVOLVEMENT: This phase of research involves jazz practitioners and educators reflecting on their environment by answering questions in an interview lasting up to 90 minutes.

PARTICIPATION: Your participation in the interview is voluntary. You are free to withdraw at anytime. Withdrawal will not incur any penalty or comment.

PROCEDURE: The interview will be conducted in a mutually acceptable time and place agreed upon by the participant and the researcher. The interview will be audio-recorded, then transcribed. Transcripts will be made available to the participants prior to analysis. It is an important feature of the study that respondents are identified, as the purpose of the interview is critical analysis by industry leaders of findings from a previous stage of research. The content of discussions will be managed with care. In accordance with The Commonwealth Privacy Act 1988 and the Privacy Amendment (Private Sector) Act 2000, this research will protect the information gathered for the purposes of analysis. The records will be stored in a locked cabinet at Queensland Conservatorium research Centre. To ensure a
direct flow of benefits back to the communities in which the research has been conducted, the research findings will be presented in academic forums (conferences and journals).

**RISKS:** Some participants may be uncomfortable in reflecting on their practices. All participants have the right to debrief with the researcher if required and may withdraw from the study at any time without explanation.

**BENEFITS** Your participation in the interview will offer the researcher insight into the current trends, practices and perceptions of jazz education in Australia. By identifying differences between the education of improvising instrumentalists and vocalists, future programs can be tailored to be more effective for vocalists, who currently trail in this field.

**RESULTS:** Results will be presented in academic forums such as conference presentations and publications, and feedback to participants on request.

**QUESTIONS/FURTHER INFORMATION:** Griffith University conducts research in accordance with the National Statement on the Ethical Conduct of Human Research (2007). If you have any concerns or complaints concerning the manner in which the research project is conducted, they may be given to the researcher Wendy Hargreaves, [wendy.hargreaves@griffithuni.edu.au](mailto:wendy.hargreaves@griffithuni.edu.au), the research supervisor Dr Scott Harrison, [Scott.Harrison@griffith.edu.au](mailto:Scott.Harrison@griffith.edu.au), or if an independent person is preferred, you can contact the Manager, Research Ethics on (07) 3735 5585 or [research-ethics@griffith.edu.au](mailto:research-ethics@griffith.edu.au).

**YOUR CONSENT**

I understand that my involvement in this research will include an interview.

I understand that my participation in this research is voluntary.

I understand that I am free to withdraw at any time, without comment or penalty.

I have had any questions answered to my satisfaction.

I understand that if I have any additional questions I can contact the researcher.

I understand that there will be no direct benefit to me from my participation in this research.

I understand the risks involved.

I understand that I can contact the Manager, Research Ethics, at Griffith University Human Research Ethics Committee on (07) 3735 5585 or [research-ethics@griffith.edu.au](mailto:research-ethics@griffith.edu.au) if I have any concerns about the ethical conduct of the project.

If after reading the information above, you agree to participate in an interview, please sign below to indicate your consent.

Participant’s signature: _______________________________________

Participant’s name: __________________________________________

Date: _____________________________________
# APPENDIX L

<table>
<thead>
<tr>
<th>Name</th>
<th>References</th>
<th>Sources</th>
</tr>
</thead>
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<td>(01) What is improv</td>
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<td>19</td>
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<tr>
<td>(02) What is a jazz musician</td>
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<td>15</td>
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<tr>
<td>(03) Difference in achievement</td>
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<td>(C1) Expressive integrity</td>
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<td>(C2) Self judgement</td>
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<td>(C3) Risk</td>
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<td>(C5) Body impact, Physicality</td>
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<td>(D2b) Music literacy</td>
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<td>14</td>
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<tr>
<td>(E) ROLE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(E1) Visual display</td>
<td>38</td>
<td>15</td>
</tr>
<tr>
<td>(E2) Interpreter and improviser</td>
<td>131</td>
<td>22</td>
</tr>
<tr>
<td>(E3) Entertainer, Audience expectation</td>
<td>69</td>
<td>15</td>
</tr>
<tr>
<td>(E4) Technical prowess</td>
<td>43</td>
<td>16</td>
</tr>
<tr>
<td>(E5) Gender influence on role</td>
<td>17</td>
<td>13</td>
</tr>
<tr>
<td>(E6) Motivation to improvise</td>
<td>29</td>
<td>18</td>
</tr>
<tr>
<td>PATTERN CODING</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(P01) 12 key effectiveness</td>
<td>23</td>
<td>17</td>
</tr>
<tr>
<td>(P02) 12 keys and range</td>
<td>16</td>
<td>14</td>
</tr>
<tr>
<td>(P03) Acting and singing</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>(P04) Chick singer, Disrespect singers Stereo type</td>
<td>40</td>
<td>20</td>
</tr>
<tr>
<td>(P05) Continuum Interp to Improv</td>
<td>19</td>
<td>16</td>
</tr>
<tr>
<td>(P06) Entertainer stagecraft</td>
<td>24</td>
<td>12</td>
</tr>
<tr>
<td>(P07) Extraverts and singing</td>
<td>12</td>
<td>7</td>
</tr>
<tr>
<td>(P08) Hard to listen to scat</td>
<td>15</td>
<td>8</td>
</tr>
<tr>
<td>(P09) Incidental starts to vocals</td>
<td>26</td>
<td>15</td>
</tr>
<tr>
<td>(P10) Instrum are superior at scat</td>
<td>11</td>
<td>7</td>
</tr>
<tr>
<td>(P11) Interaction of jazz musicians</td>
<td>22</td>
<td>12</td>
</tr>
<tr>
<td>(P12) Musician word use</td>
<td>12</td>
<td>8</td>
</tr>
<tr>
<td>(P13) Pitch ID blocks creativity</td>
<td>9</td>
<td>5</td>
</tr>
<tr>
<td>(P14) Role change reasons</td>
<td>32</td>
<td>11</td>
</tr>
<tr>
<td>(P15) Singing is easier</td>
<td>68</td>
<td>15</td>
</tr>
<tr>
<td>(P16) Vox teaching more relational</td>
<td>10</td>
<td>7</td>
</tr>
<tr>
<td>(P17) Educational Setting</td>
<td>97</td>
<td>21</td>
</tr>
<tr>
<td>VERSUS CODING</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(V1) Artist Vs Entertainer</td>
<td>25</td>
<td>11</td>
</tr>
<tr>
<td>(V2) Choral Vs solo voice</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>(V3) Improv Vs Interpretation</td>
<td>11</td>
<td>9</td>
</tr>
<tr>
<td>(V4) Instrumentalist Vs vocalist</td>
<td>74</td>
<td>20</td>
</tr>
<tr>
<td>(V5) Male Vs Female</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>(V6) Relative Vs perfect pitch</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>(V7) Singer Vs Jazz Singer</td>
<td>43</td>
<td>15</td>
</tr>
</tbody>
</table>
APPENDIX M

PROFESSIONAL BACKGROUND OF INTERVIEW PARTICIPANTS

Provided here is a brief professional overview of each participant who took part in the interview phase of the research. A distinction is made between those who are jazz vocal improvisation practitioners and educators, and those who are senior academic staff of a tertiary institution.

Ingrid James

Ingrid James is a jazz vocalist and educator currently residing in Brisbane. She has performed at notable jazz venues in Australia and overseas including Bennetts Lane in Melbourne, The Basement in Sydney, 606 Club in London, Le Franc Pinot Jazz Club in Paris and The Blue Note in Monaco. Her participation in Australian jazz festivals includes the Noosa Jazz Festival, the Manly Jazz Festival and the Bellingen Jazz Festival. Ingrid has a graduate diploma in vocal pedagogy, teaches voice privately and also runs jazz vocal master classes and workshops. To date she has released nationally six CDs, two of which received the Queensland Music Industry Sunnie Award for Best Jazz Album. Ingrid was invited to participate in the interviews after she was identified by survey participants as a teacher of vocal jazz improvisation.

Ashley Lewis

Ashley Lewis is a vocalist and trombonist currently residing on the Gold Coast. He attained his 8th grade in A.M.E.B on trombone by the age of 13, and went on to study a Bachelor of Music Performance at the Queensland Conservatorium. He was awarded the Queens Trust for Young Achievers and a Queensland Arts Council grant to study overseas. He pursued classical and jazz studies in Los Angeles, Chicago, New York, London and Munich and performed in tours of Europe and the United States. After returning to Australia, he performed widely in jazz clubs and private and corporate functions as a singer and trombonist in the Ashley Lewis Band and as a guest vocalist for Jazz Australis. He has performed with Australian artists including James Morrison, Don Burrows, Ed Wilson and Venetta Fields, and with visiting international artists including Maynard Ferguson, Ray Brown, Benny Carter and Tom Baker. He has released one album and has recorded with Jazz Australis. Ashley was invited to participate in the interviews after he was identified by professional jazz musicians as a proficient scat singer. This was verified by the researcher at his performance at the Jumpers and Jazz Festival in Warwick, 2009.

Sharny Russell

Sharny Russell is a vocalist, pianist, composer and educator who lives at Byron Bay. Sharny has performed extensively across Australia in jazz clubs and at jazz festivals including the Manly Jazz Festival and the Bellingen Jazz Festival. She has performed with Julian Lee, James Morrison, John Morrison, John Hoffman, Tom Baker, James Sherlock, Tony Gould and George Golla. She has also toured with Grace Knight and Don Rader as part of the ABC Queensland concert series. Sharny has recorded multiple albums including “A Good Thing on Hold” which
was released on the *ABC Jazz* label. As an educator, she has taught voice privately, at the Queensland Conservatorium and at Adelaide University. She is currently writing her own vocal improvisation handbook. Sharny was invited to participate in the interviews after she was identified by survey participants as a teacher of vocal jazz improvisation.

**Melissa Forbes**

Melissa Forbes is a vocalist and educator currently living in Toowoomba. She received her Bachelor of Music from the Queensland Conservatorium, earning a University Medal for most outstanding undergraduate student. In 2011 she was awarded a Churchill Fellowship for travel to the United States to study voice. Melissa has performed overseas in Singapore and Japan, and locally in Australia, alongside performers including Michael Buble, *Naturally 7* and David Hobson. She has released one album titled “No More Mondays”. Melissa has taught voice in her private studio, at the Jazz Music Institute in Brisbane and at the Young Conservatorium at the Queensland Conservatorium. She is currently a lecturer in contemporary voice at the University of Southern Queensland. Melissa was invited to participate in the interviews after she was identified by survey participants as a teacher of vocal jazz improvisation.

**Mark Ham**

Mark Ham is a vocalist and trombonist currently located in Sydney. He attained his AMUS A in trombone at the age of 16. Later, he completed an Associate Diploma of Jazz on trombone at the Sydney Conservatorium of Music, and pursued jazz vocal lessons privately. Mark has performed professionally in pubs and jazz clubs across Australia as well as at corporate and private functions. He has played trombone for professional theatre productions including *Miss Saigon*, sung in the *Australian Blues Brothers Show*, and appeared as a guest jazz artist on trombone and vocals with *Jazz Australis* and *Mood Swing*. Mark has recorded one solo album and contributed to numerous other recordings including Katie and Maggie Noonan’s album “Two of Kind”. Mark is currently a Petty Officer and plays trombone in the Royal Australian Navy Band. Mark was invited to participate in the interviews after he was identified by professional jazz musicians as a proficient scat singer. This was verified by the researcher at his performance at the Maggie Black’s Jazz Club in Brisbane, 2007.

**Jacki Cooper**

Jacki Cooper is a Sydney-based jazz vocalist and educator. She holds a Bachelor of Music in Jazz Voice from Adelaide University. She has had an extensive career performing at private and corporate functions, jazz clubs and jazz festivals including the Noosa Jazz Festival, the Manly Jazz Festival, the Darling Harbour Jazz and Blues Festival and the Thredbo Jazz Festival. She sings in the big band *Swing City* and the quintet *New Generation*, and also fronts the *Jacki Cooper Jazz Quartet*. She has toured overseas performing at the JZ Jazz Club and the House of Jazz and Blues in Shanghai, China, and has sung with the *Jim Cullum Jazz Band* at the Landing Jazz Club on the Riverwalk in San Antonio, Texas. Jacki has recorded four albums and in March 2010 was awarded Best Jazz Artist at the Musicoz Awards. As an educator, she has taught voice privately, at schools and in workshops. Jacki was invited to
participate in the interviews after she was identified by survey participants as a teacher of vocal jazz improvisation.

The Idea of North (Andrew Piper, Nick Begbie, Naomi Crellin and Sally Cameron)

The Idea of North is an a cappella quartet based in Sydney. The group performs a variety of musical genres including a marked portion of jazz. Their excellence in jazz has been recognised nationally. In 2010, “Feels Like Spring”, their collaborative album with James Morrison, received an ARIA award for Best Jazz Album. Their subsequent album, “Extraordinary Tale” received the Limelight Award for Best Jazz Recording and was nominated in 2011 for an ARIA for Best Jazz Album. The Idea of North have performed extensively around Australia and overseas in Korea, the Philippines, France, Canada, the United States, Japan and Laos. They have made multiple appearances on national television including Hey, Hey, It’s Saturday: The Reunion, The Today Show, and Carols in the City. The quartet has performed with notable artists including The Real Group, James Morrison, Don Burrows, Naturally 7, Katie Noonan, Gina Jefferies and Kevin Hunt. As individual vocal jazz improvisation is incorporated frequently into their performances, Sally, Naomi, Nick and Andrew were interviewed separately for the research.

Sally Cameron sings soprano in the quartet. During her schooling, she studied alto saxophone, violin and classical voice, winning the Adelaide Junior Vocal Championship in 1995 and 1996. She completed a Bachelor of Music in Jazz Voice at the Elder Conservatorium then worked as compere and solo singer in the South Australian Police Band prior to joining The Idea of North.

Naomi Crellin sings alto in the quartet and contributes as an arranger and as musical director. She trained in piano, cello, recorder and oboe during her school years and won the Young Australian Composer of the Year Award in 1996. Naomi began her tertiary training in classical piano at the Elder Conservatorium but changed to voice mid-stream and graduated with a Bachelor of Music in Jazz Voice.

Nick Begbie sings tenor for the quartet. His background is in linguistic studies, obtaining a Bachelor of Arts in Asian Studies from the Australian National University. Nick is a self-taught musician with experience in musical theatre and ensemble performance. He worked as the lead vocalist in a big band and fronted several small jazz ensembles prior to founding The Idea of North. He also sang in the barbershop quartet Four to the Bar who won a gold medal at the Australian National Barbershop Convention in 1997.

Alongside Nick, bass singer, composer and arranger, Andrew Piper is one of the founding members of The Idea of North. Andrew has a Master of Music from the Canberra School of Music (ANU) in jazz trumpet performance. Prior to his involvement with the quartet, he lectured at the Canberra School of Music and worked as a freelance trumpet player. He toured overseas with many professional ensembles and bands, including trips to Beijing and the Monterey Jazz Festival. Andrew prefaced his interview by stating he does not really consider himself a vocal improviser because as the bass singer he more frequently provides the harmonic and rhythmic support over which his fellow singers improvise. However, Andrew’s experiences and perspectives as a music educator, a male jazz vocalist, a jazz
instrumentalist and as a close observer of the other vocal jazz improvisers in the group, were relevant additions to the data.

The Idea of North were invited to participate in the interviews after a former member of the group, Trish Delaney-Brown, was identified by survey participants as a teacher of vocal jazz improvisation. No response was received from Ms Delaney-Brown to an invitation to participate however attention was drawn to the existing members of the group as proficient vocal improvisers. This was verified by the researcher at their performance in their concert The Idea of North: Up Close and Personal, at the Brisbane Powerhouse in 2010.

Kristin Berardi

Kristin Berardi is a jazz vocalist and educator who currently lives in regional New South Wales, 80 kilometres southwest of Sydney. She studied jazz voice at the Queensland Conservatorium as part of her undergraduate studies in music. In 2006, she won the Montreux Jazz Festival’s International Vocal Competition. In Australia, she has performed in jazz clubs such as Bennetts Lane and the Brisbane Jazz Club, as well as made appearances at jazz festivals including the Melbourne International Jazz Festival, the Manly Jazz Festival, the Wangaratta Festival of Jazz and Blues and Darling Harbour Jazz and Blues Festival. Overseas she has performed at the National Jazz Festival in Tauranga, New Zealand as well as venues in New York, Germany, Switzerland and Indonesia. Her album, “If You Were There”, received a Bell Award for Best Jazz Vocal Album. A second album, “Kristin Berardi Meets the Jazzgroove Mothership Orchestra” was nominated for an ARIA award in 2011. Aside from teaching voice privately, Kristin has taught at the Australian National University in Canberra and as a guest lecturer at other tertiary institutions around Australia. Kristin was invited to participate in the interviews after she was identified by survey participants as a teacher of vocal jazz improvisation.

Libby Hammer

Libby is a jazz vocalist and educator who resides in Perth, Western Australia. She has performed in professional productions of Annie and La Boheme and as the resident vocalist for the West Australian Youth Jazz Orchestra. She has also sung extensively as a solo artist and with her big band Hip Mo’ Toast. Libby has worked alongside Australian jazz artists including James Morrison and Joe Chindamo, and international artists such as Christoph Spendel and Gary Bartz. She has made four recordings with Hip Mo’ Toast and in 2006 the group won its sixth consecutive West Australian Music Industry Association award for Most Popular Original Jazz Act. Libby has a Bachelor of Music (Jazz) from the Western Australian Academy of Performing Arts (WAAPA). As an educator she has taught voice at WAAPA, local schools and privately. Libby was invited to participate in the interviews after she was identified by survey participants as a teacher of vocal jazz improvisation.

Irene Bartlett

Irene Bartlett is a jazz vocalist, contemporary voice educator and researcher who lives in Brisbane. She has performed for over 42 years in the music industry as a solo artist and has fronted many ensembles, including Mood Swing. She performs frequently at private and
corporate functions, the Brisbane Jazz Club and at festivals. Irene has a Doctor of Musical Arts which investigated the vocal health of professional contemporary singers. She runs a private voice studio and coordinates the contemporary voice programme at the Queensland Conservatorium where she also lectures in vocal pedagogy. Irene has taught as a guest lecturer at the Sydney Conservatorium of Music, Central Queensland University and as the artist-in-residence at the National Academy of Singing and Dramatic Art in New Zealand. Irene was invited to participate in the interviews after she was identified by survey participants as a teacher of vocal jazz improvisation.

Michelle Nicole

Michelle Nicolle is a jazz vocalist currently based in Melbourne. She has performed extensively in Australia at jazz venues including The Basement in Sydney, the Brisbane Jazz Club, and Bennetts Lane in Melbourne. She has made regular national television appearances on Bert Newton’s Good Morning Australia and the ABC’s The Pulse. Overseas she has performed at the North Sea Jazz Festival in Holland and toured New Zealand, Turkey, Finland, Singapore, Korea, Taiwan, Italy, Malaysia and Thailand. She has released six CDs and has been the recipient of multiple awards. She received the National Jazz Award in 1998, the Australian Entertainment Industry Mo Award in 2001, 2003 and 2004, and was an ARIA finalist in 2001 and 2004. Michelle has a Bachelor of Education and an Associate Diploma of Jazz. She has taught voice privately as well as at Monash University, the Northern Melbourne Institute of TAFE and as a guest teacher at the Elder Conservatorium in Adelaide. Michelle was invited to participate in the interviews after she was identified by survey participants as a teacher of vocal jazz improvisation.

Dan Barnett

Dan Barnett is a Sydney-based jazz vocalist and trombonist. He has performed regularly as a member of the Unity Hall Jazz Band and Blues Point Jazz Vocal Group as well as in his own ensemble the Dan Barnett Big Band. He has toured Thailand, Europe, Brazil, Taiwan and the United States and worked and recorded with artists including Mark Murphy, Will Calhoun, Barbara Morrison, Bob Barnard, Don Burrows, George Golla, James Morrison and Janet Seidel. He has also made appearances at Australian festivals in Sydney, Adelaide and Melbourne, and at the Wangaratta Festival of Jazz and Blues and the Darling Harbour Jazz and Blues Festival. In 2006, he was a finalist in the vocal section of the London International Jazz Vocal Competition. To date, he has recorded four albums. Dan was invited to participate in the interviews after he was identified by survey participants as a teacher of vocal jazz improvisation.

Craig Scott

Senior Jazz Educator at a Tertiary Institution in Australia

Craig Scott is Chair of Jazz Studies at the Sydney Conservatorium of Music. Among his duties, he coordinates the Master of Music (Jazz) degree programme and teaches improvisation to instrumentalists and vocalists. He also gives master classes at other tertiary institutions around Australia and New Zealand. In 2002, he was invited to be a guest lecturer at the Berklee Music School in Boston, for the International Association of Schools of Jazz. Craig
has an extensive background as a professional jazz bassist, performing in the industry for over 25 years with artists including Don Burrows, James Morrison, Julian Lee, Kerrie Biddell, Paul McNamara and Steve McKenna. He has also accompanied many visiting international jazz artists including Joe Henderson, Red Rodney, Eddie Daniels, Bobby Shew, Clifford Jordan, Lee Konitz, Frank Morgan and Jim McNeely. Craig was invited to participate in the interviews because of his experience as a jazz educator in the senior position of a tertiary music institution.

Robert Burke  
**Senior Jazz Educator at a Tertiary Institution in Australia**

Robert Burke is Head of the School of Music and Coordinator of Jazz and Popular Studies at Monash University in Melbourne. In this role, he lectures, takes ensembles and co-ordinates the Jazz and Popular Studies course. Robert also works as a professional saxophonist, clarinettist and composer. He has performed on over 100 CDs for popular artists including John Farnham and *Ice House*, and contributed to contemporary jazz projects with musicians including Tony Gould, Stephen Magnusson and Geoff Hughes. He was nominated for an APRA award for Best Composition in 2008. As an educator, he has taught privately, at the Victorian College of the Arts and at Monash University. Robert was invited to participate in the interviews because of his experience as a jazz educator in the senior position of a tertiary music institution.

Louise Denson  
**Senior Jazz Educator at a Tertiary Institution in Australia**

Louise Denson is Head of Jazz at the Queensland Conservatorium, in Brisbane. In her role, she teaches jazz piano, composition, jazz aural and directs ensembles. Jazz improvisation is not taught as a segregated subject but is incorporated into the aforementioned learning areas. She has a Masters degree in Jazz Improvisation from the New England Conservatory, Boston and is currently undertaking a Doctorate of Musical Arts. Louise also works as a professional jazz pianist and composer, and has recorded three albums. She has performed at jazz festivals in Ottawa, Montreal, Vancouver, Edmonton, Calgary and Saskatoon. In Australia she has performed at clubs and festivals including the Wangaratta Festival of Jazz and Blues, the Melbourne Women's International Jazz Festival, the Brisbane Festival, and the Queensland Biennial Festival of Music. Louise was invited to participate in the interviews because of her experience as a jazz educator in the senior position of a tertiary music institution.

Bruce Hancock  
**Senior Jazz Educator at a Tertiary Institution in Australia**

Bruce Hancock is Head of Jazz Studies at the Elder Conservatorium, University of Adelaide. His role includes co-ordinating the certificate III, certificate IV, and diploma programmes, as well as the Bachelor of Music in Performance (Jazz) and the Bachelor of Music Education. He also supervises several Masters and Doctor of Philosophy students. Bruce is a professional jazz pianist and has worked in various small ensemble configurations with well known jazz musicians in Australia such as James Morrison, Andy Firth, Don Burrows and Bob Barnard.
He has recorded a CD entitled “My Blue Heaven” which he describes as an abbreviated history of his musical life. Bruce was invited to participate in the interviews because of his experience as a jazz educator in the senior position of a tertiary music institution.

**Mike Price**  
*Senior Jazz Educator at a Tertiary Institution in Australia*

Mike Price is Head of Jazz in the School of Music at the Australian National University (ANU) in Canberra. In this role, he supervises research students and teaches harmony, guitar and improvisation. The improvisation classes are attended by both instrumentalists and vocalists. Mike is also a professional guitarist and composer, with a Bachelor of Music from Berklee College of Music. He attended the New England Conservatory and completed his Master of Music at ANU. While in the United States, Mike played with prominent musicians including Dave Santoro, Nat Reeves, Randy Johnston and Mike Mussilami. In Australia he has performed with Bernie McGann, Julian Lee, Dale Barlow, Darryl Pratt, Bob Sedergreen, and Nick McBride. Mike was invited to participate in the interviews because of his experience as a jazz educator in the senior position of a tertiary music institution.

**Jamie Oehlers**  
*Senior Jazz Educator at a Tertiary Institution in Australia*

Jamie Oehlers is Co-ordinator of Jazz Studies at the Western Australian Academy of Performing Arts in Perth. Amongst his responsibilities are developing course materials and teaching improvisation to second year, third year and post-graduate students. Jamie is a professional saxophonist who won the White Foundation World Saxophone Competition in 2003. In 2007, he was named Australian Jazz Artist of the Year at the Bell Awards. Jamie has recorded nine albums, three of which won Bell Awards for Best Australian Contemporary Jazz Album. He has performed at many Australian jazz festivals and overseas at the BBC London Jazz Festival, the JVC Jazz Festival in New York, the Montreux Jazz Festival and the Edinburgh Jazz Festival. Jamie has worked in jazz education at the Victorian College of the Arts and Monash University and has conducted workshops in the United Kingdom, Ireland, Australia and New Zealand. He was invited to participate in the interviews because of his experience as a jazz educator in the senior position of a major tertiary music institution.

**Dan Quigley**  
*Senior Jazz Educator at a Tertiary Institution in Australia*

Dan Quigley is Head of School of the Jazz Music Institute in Brisbane. His duties include coordinating the Bachelor of Music in Jazz Performance, developing course curriculum and teaching improvisation to combined classes of instrumentalists and vocalists. Dan is a professional trumpeter who holds an Advanced Diploma of Music, Bachelor of Music and a Masters of Music Studies. He has performed alongside Dale Barlow, James Morrison and Grace Knight and participated in Australian music festivals including the Noosa Jazz Festival, the Valley Jazz Festival and the Brisbane Festival. He has performed at venues including the Brisbane Powerhouse, the Brisbane Jazz Club, the Sydney Opera House and the Paris Cat Jazz Club in Melbourne, as well as performing overseas in tours of Japan and New York. Dan was
invited to participate in the interviews because of his experience as a jazz educator in the senior position of a tertiary jazz music institution.
RESULTS FOR THE SURVEY QUESTION “VOCALISTS, WHEN YOU SING, HOW DO YOU IDENTIFY THE NAME OF THE NOTE YOU ARE SINGING? (Select all that apply).”

- I can't identify it
- I use perfect pitch
- I use solfa then calculate the name
- Other
- I don't know the name of the note but I know where it fits in the chord
- I don't identify it because I don't need to
- I ask an instrumentalist what it is
- I calculate the interval from another known pitch
- I read the music
APPENDIX O

CONTINGENCY TABLES FOR SURVEY FINDINGS

Contingency Table for page 106. The perception of whether ideas come from audiation during improvising.

<table>
<thead>
<tr>
<th>COUNT</th>
<th>Participants who indicated they get ideas for improvising from “spontaneous tunes I hear in my head”</th>
<th>Participants who did not select this option</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instrumentalists</td>
<td>90</td>
<td>42</td>
<td>132</td>
</tr>
<tr>
<td>Vocalists</td>
<td>31</td>
<td>19</td>
<td>50</td>
</tr>
<tr>
<td>TOTAL</td>
<td>121</td>
<td>61</td>
<td>182</td>
</tr>
</tbody>
</table>

Contingency Table for Figure 11. The method perceived to be used by jazz musicians when they first began improvising.

Survey question: Which statement best represents how you first began improvising? 1) I picked notes that were likely to sound good because I knew they were in the chord or scale; 2) I used my ear to play/sing notes that sounded good to me without knowing the chord or scale; or, 3) Neither of the above statements.

<table>
<thead>
<tr>
<th>COUNT</th>
<th>1) Goal note approach</th>
<th>2) Notes selected by sound, without theoretical knowledge</th>
<th>3) Neither</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instrumentalists</td>
<td>51</td>
<td>57</td>
<td>24</td>
<td>132</td>
</tr>
<tr>
<td>Vocalists</td>
<td>7</td>
<td>40</td>
<td>3</td>
<td>50</td>
</tr>
<tr>
<td>TOTAL</td>
<td>58</td>
<td>97</td>
<td>27</td>
<td>182</td>
</tr>
</tbody>
</table>

Contingency Table for Figure 17. Perceived frequency of awareness of absolute pitch during improvising.

Survey question: How often do you know the name of the note you’re on while improvising?

<table>
<thead>
<tr>
<th>COUNT</th>
<th>Constantly</th>
<th>Frequently</th>
<th>Half the time</th>
<th>Sometimes</th>
<th>Never</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instrumentalists</td>
<td>65</td>
<td>37</td>
<td>6</td>
<td>17</td>
<td>7</td>
<td>132</td>
</tr>
<tr>
<td>Vocalists</td>
<td>1</td>
<td>7</td>
<td>4</td>
<td>21</td>
<td>17</td>
<td>50</td>
</tr>
<tr>
<td>TOTAL</td>
<td>66</td>
<td>44</td>
<td>10</td>
<td>38</td>
<td>24</td>
<td>182</td>
</tr>
</tbody>
</table>
Contingency Table for Figure 21. Survey results showing whether jazz performers usually consider it important to communicate the lyrics of a song during their performance.

Survey question: Is it usually important to you to communicate the lyrics of a song when you are playing/singing?

<table>
<thead>
<tr>
<th>COUNT</th>
<th>Yes</th>
<th>No</th>
<th>Don’t Know</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instrumentalists</td>
<td>81</td>
<td>49</td>
<td>9</td>
<td>139</td>
</tr>
<tr>
<td>Vocalists</td>
<td>63</td>
<td>0</td>
<td>0</td>
<td>63</td>
</tr>
<tr>
<td>TOTAL</td>
<td>144</td>
<td>49</td>
<td>9</td>
<td>202</td>
</tr>
</tbody>
</table>

Contingency Table for Figure 24. Percentage of survey respondents showing whether they consider the singer’s perceived connection with an audience is attributable to the singing of lyrics.

Survey question: Do you think vocalists have a stronger connection with audiences than instrumentalists because they sing lyrics?

<table>
<thead>
<tr>
<th>COUNT</th>
<th>Yes</th>
<th>No</th>
<th>Don’t Know</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instrumentalists</td>
<td>98</td>
<td>34</td>
<td>7</td>
<td>139</td>
</tr>
<tr>
<td>Vocalists</td>
<td>54</td>
<td>7</td>
<td>2</td>
<td>63</td>
</tr>
<tr>
<td>TOTAL</td>
<td>152</td>
<td>41</td>
<td>9</td>
<td>202</td>
</tr>
</tbody>
</table>

Contingency Table for Figure 28. Survey results showing whether jazz performers have to emotionally identify or be comfortable with the lyrics of a song in order to perform it.

Survey question: Do you have to emotionally identify or be comfortable with the lyrics of a song in order to perform it?

<table>
<thead>
<tr>
<th>COUNT</th>
<th>Yes</th>
<th>No</th>
<th>Don’t Know</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instrumentalists</td>
<td>38</td>
<td>90</td>
<td>11</td>
<td>139</td>
</tr>
<tr>
<td>Vocalists</td>
<td>44</td>
<td>19</td>
<td>0</td>
<td>63</td>
</tr>
<tr>
<td>TOTAL</td>
<td>82</td>
<td>109</td>
<td>11</td>
<td>202</td>
</tr>
</tbody>
</table>
Contingency Table for Figure 29. The perceived frequency that jazz musicians make self judgements about how good their solo is while improvising.

Survey question: How often do you make judgements about how good your solo is while improvising?

<table>
<thead>
<tr>
<th>COUNT</th>
<th>Constantly</th>
<th>Frequently</th>
<th>Half the time</th>
<th>Sometimes</th>
<th>Never</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instrumentalists</td>
<td>58</td>
<td>34</td>
<td>14</td>
<td>19</td>
<td>7</td>
<td>132</td>
</tr>
<tr>
<td>Vocalists</td>
<td>16</td>
<td>17</td>
<td>2</td>
<td>12</td>
<td>3</td>
<td>50</td>
</tr>
<tr>
<td>TOTAL</td>
<td>74</td>
<td>51</td>
<td>16</td>
<td>31</td>
<td>10</td>
<td>182</td>
</tr>
</tbody>
</table>

Contingency Table for Figure 30. Survey results showing which musician is perceived to take the greater personal risk by improvising.

Survey question: In your experience, which musician takes the greater personal risk by improvising?

<table>
<thead>
<tr>
<th>COUNT</th>
<th>Instrumentalist</th>
<th>Vocalist</th>
<th>Neither</th>
<th>Don’t Know</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instrumentalists</td>
<td>34</td>
<td>64</td>
<td>34</td>
<td>13</td>
<td>145</td>
</tr>
<tr>
<td>Vocalists</td>
<td>8</td>
<td>43</td>
<td>9</td>
<td>4</td>
<td>64</td>
</tr>
<tr>
<td>TOTAL</td>
<td>42</td>
<td>107</td>
<td>43</td>
<td>17</td>
<td>209</td>
</tr>
</tbody>
</table>

Contingency Table for Figure 32. The perceived frequency of eye contact of jazz musicians with the audience during jazz performance.

Survey question: While you are playing/singing in a jazz performance, how frequently do you make eye contact with the audience?

<table>
<thead>
<tr>
<th>COUNT</th>
<th>Constantly</th>
<th>Frequently</th>
<th>Half the time</th>
<th>Sometimes</th>
<th>Never</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instrumentalists</td>
<td>9</td>
<td>39</td>
<td>13</td>
<td>65</td>
<td>10</td>
<td>136</td>
</tr>
<tr>
<td>Vocalists</td>
<td>13</td>
<td>37</td>
<td>5</td>
<td>7</td>
<td>1</td>
<td>63</td>
</tr>
<tr>
<td>TOTAL</td>
<td>22</td>
<td>76</td>
<td>18</td>
<td>72</td>
<td>11</td>
<td>199</td>
</tr>
</tbody>
</table>
Contingency Table for Figure 40. Jazz musicians’ perceptions of whether learning a song in all 12 keys is helpful to their work.

Survey question: Is it helpful to your work as a jazz instrumentalist/singer to learn the same song in all 12 keys?

<table>
<thead>
<tr>
<th>COUNT</th>
<th>Yes</th>
<th>No</th>
<th>Don’t Know</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instrumentalists</td>
<td>84</td>
<td>48</td>
<td>7</td>
<td>139</td>
</tr>
<tr>
<td>Vocalists</td>
<td>11</td>
<td>48</td>
<td>4</td>
<td>63</td>
</tr>
<tr>
<td>TOTAL</td>
<td>95</td>
<td>96</td>
<td>11</td>
<td>202</td>
</tr>
</tbody>
</table>

Contingency Table for page 251. A comparison of frequency that vocalists or instrumentalists undertake adult, formalised jazz education in Australia.

Survey question: Have you previously or are you currently studying jazz as an adult at a college, university, tertiary course, workshop or with a private music teacher in Australia?

<table>
<thead>
<tr>
<th>COUNT</th>
<th>Yes</th>
<th>No</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instrumentalists</td>
<td>97</td>
<td>43</td>
<td>140</td>
</tr>
<tr>
<td>Vocalists</td>
<td>40</td>
<td>24</td>
<td>64</td>
</tr>
<tr>
<td>TOTAL</td>
<td>137</td>
<td>67</td>
<td>204</td>
</tr>
</tbody>
</table>

Contingency Table for Figure 43. The perception of jazz musicians of which musician has more access to jazz venues where they can perform.

Survey question: In your experience, which musician has more access to jazz venues where they can perform?

<table>
<thead>
<tr>
<th>COUNT</th>
<th>Instrumentalist</th>
<th>Vocalist</th>
<th>Neither</th>
<th>Don’t Know</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instrumentalists</td>
<td>27</td>
<td>66</td>
<td>34</td>
<td>13</td>
<td>140</td>
</tr>
<tr>
<td>Vocalists</td>
<td>33</td>
<td>11</td>
<td>15</td>
<td>5</td>
<td>64</td>
</tr>
<tr>
<td>TOTAL</td>
<td>60</td>
<td>77</td>
<td>49</td>
<td>18</td>
<td>204</td>
</tr>
</tbody>
</table>

Contingency Table for page 287. The association between gender and whether musicians considered themselves primarily vocalists or instrumentalists.

<table>
<thead>
<tr>
<th>COUNT</th>
<th>Male</th>
<th>Female</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instrumentalists</td>
<td>132</td>
<td>13</td>
<td>145</td>
</tr>
<tr>
<td>Vocalists</td>
<td>17</td>
<td>47</td>
<td>64</td>
</tr>
<tr>
<td>TOTAL</td>
<td>149</td>
<td>60</td>
<td>209</td>
</tr>
</tbody>
</table>
Contingency Table for page 296. The usage of the word “improvisation”

Survey question: Which word do you think best describes the act of making changes to the rhythm or melody of a jazz song during a live performance but keeping the composer’s original tune recognisable to an audience?

<table>
<thead>
<tr>
<th>COUNT</th>
<th>Interpretation</th>
<th>Improvisation</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instrumentalists</td>
<td>119</td>
<td>21</td>
<td>140</td>
</tr>
<tr>
<td>Vocalists</td>
<td>50</td>
<td>14</td>
<td>64</td>
</tr>
<tr>
<td>TOTAL</td>
<td>169</td>
<td>35</td>
<td>204</td>
</tr>
</tbody>
</table>

Contingency Table for page 298. Jazz musicians indicated whether or not they improvise instrumental/scat solos in public jazz performances

Survey question: Do you improvise instrumental/scat solos in public jazz performances?

<table>
<thead>
<tr>
<th>COUNT</th>
<th>Yes</th>
<th>No</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instrumentalists</td>
<td>133</td>
<td>3</td>
<td>136</td>
</tr>
<tr>
<td>Vocalists</td>
<td>51</td>
<td>12</td>
<td>63</td>
</tr>
<tr>
<td>TOTAL</td>
<td>184</td>
<td>15</td>
<td>199</td>
</tr>
</tbody>
</table>

Contingency Table for Figure 51. The perceived frequency that jazz musicians improvise a solo in jazz performances.

Survey question: How often do you improvise an instrumental/scat solo in jazz performances?

<table>
<thead>
<tr>
<th>COUNT</th>
<th>Constantly</th>
<th>Frequently</th>
<th>Half the time</th>
<th>Sometimes</th>
<th>Never</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instrumentalists</td>
<td>61</td>
<td>51</td>
<td>11</td>
<td>9</td>
<td>0</td>
<td>132</td>
</tr>
<tr>
<td>Vocalists</td>
<td>6</td>
<td>19</td>
<td>11</td>
<td>14</td>
<td>0</td>
<td>50</td>
</tr>
<tr>
<td>TOTAL</td>
<td>67</td>
<td>70</td>
<td>22</td>
<td>23</td>
<td>0</td>
<td>182</td>
</tr>
</tbody>
</table>

Contingency Table for Figure 54. Perceptions of whether jazz musicians think being able to improvise is part of what makes someone a “real jazz musician”.

Survey question: Do you think being able to improvise is part of what makes someone a “real jazz musician”?

<table>
<thead>
<tr>
<th>COUNT</th>
<th>Yes</th>
<th>No</th>
<th>Don’t Know</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instrumentalists</td>
<td>131</td>
<td>6</td>
<td>2</td>
<td>139</td>
</tr>
<tr>
<td>Vocalists</td>
<td>48</td>
<td>14</td>
<td>1</td>
<td>63</td>
</tr>
<tr>
<td>TOTAL</td>
<td>179</td>
<td>20</td>
<td>3</td>
<td>202</td>
</tr>
</tbody>
</table>
Contingency Table for Figure 56. Jazz musicians’ indication of whether they are generally motivated to improvise a solo when performing.

Survey question: Are you generally motivated to improvise an instrumental/scat solo when performing?

<table>
<thead>
<tr>
<th>COUNT</th>
<th>Yes</th>
<th>No</th>
<th>Don’t Know</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instrumentalists</td>
<td>126</td>
<td>11</td>
<td>2</td>
<td>139</td>
</tr>
<tr>
<td>Vocalists</td>
<td>40</td>
<td>21</td>
<td>2</td>
<td>63</td>
</tr>
<tr>
<td>TOTAL</td>
<td>166</td>
<td>32</td>
<td>4</td>
<td>202</td>
</tr>
</tbody>
</table>
APPENDIX P

RESULTS FOR THE SURVEY QUESTION
“WHEN YOU IMPROVISE, WHERE DO YOUR IDEAS COME FROM?”

<table>
<thead>
<tr>
<th>Response options</th>
<th>Instrumentalists</th>
<th>Vocalists</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategies</td>
<td>60.6%</td>
<td>54.0%</td>
</tr>
<tr>
<td>Imitation</td>
<td>52.3%</td>
<td>47.7%</td>
</tr>
<tr>
<td>Motor</td>
<td>47.7%</td>
<td>36.0%</td>
</tr>
<tr>
<td>Audition</td>
<td>68.2%</td>
<td>62.0%</td>
</tr>
<tr>
<td>Accompaniment</td>
<td>90.9%</td>
<td>80.0%</td>
</tr>
<tr>
<td>Harmony</td>
<td>80.3%</td>
<td>80.3%</td>
</tr>
<tr>
<td>Rhythm</td>
<td>74.0%</td>
<td>72.0%</td>
</tr>
<tr>
<td>Melody</td>
<td>86.4%</td>
<td>84.0%</td>
</tr>
<tr>
<td>Don’t know</td>
<td>17.4%</td>
<td>15.2%</td>
</tr>
<tr>
<td>Other</td>
<td>16.0%</td>
<td>10.0%</td>
</tr>
</tbody>
</table>
"It Don't Mean a Thing..."
Definitions of terminology relevant to this thesis are supplied here to provide clarity for readers.

Audiation

The term audiation was coined by music educator Edwin Gordon to represent how the mind processes, organises and comprehends sound in music, regardless of whether that sound is physically present. The ability of improvising musicians to audiate or “pre-hear” their ideas before performing them is frequently referenced in jazz literature (e.g., Berliner, 1994, p. 263; Enstice & Stockhouse, 2004, p. 164; Kratus, 1991, p. 38; Wiskirchen, 1975, p. 74). Wadsworth’s (2005) research brought attention to the additional dependence improvising vocalists have on audiating every pitch before it can be accurately vocalised.

Chops

Chops refers to a musician’s technical skill or physical mastery of jazz elements.

Comping

Comping is the act of providing accompaniment for a voice or instrument. Typically the harmonic structure is provided in a lead sheet or is known by the performers, however they choose the voicing and the rhythmic figures when playing.

Gig

A gig refers to a live musical performance. Musicians may use this term in reference to performances for which their services have been engaged.

Goal note approach

A goal note approach is when notes are deliberately selected and performed because they are known theoretically to be compatible with the given harmony, or with the player’s harmonic intentions.

Guide tones

Guide tones are the individual notes of a given chord in a harmonic progression. They function as structural reference points, usually focusing on the 3rd and 7th of the chords, which supply notes of relative consonance when improvising. Guide tones are used as a popular teaching strategy where students are encouraged to play/sing through a song by moving from one guide tone to the next as the harmony progresses.
**Head, chorus**

The head or chorus refers to the precomposed jazz song upon which a jazz performance is constructed. It is typically 32 bars in length with a predetermined melody, rhythm and harmonic progression. The form of a song in jazz performance traditionally begins and ends with the playing of the head/chorus.

**Impro, improv**

The term impro or improv is an abbreviation of improvisation. It is often used by tertiary students and teachers in reference to the class or subject where improvisation is taught.

**Jam, jam session**

A jam or jam session refers to the act or event where two or more musicians practice jazz songs together. The musician’s motivation often centres on developing musical skills rather than other agendas. A jam or jam session may occur in a public or private setting.

**Master class**

A master class is a teaching method in music education where an expert instructs a student while a class passively observes. In jazz education, the term is also used to describe a class which forms as a subdivision of a multi-instrumental group. The smaller group consists of like-instruments who receive additional, specialised instruction on their instrument. Likewise singers may participate in a vocal master class.

**Scat**

Scat is used as a verb or noun to describe the act of or the product of vocal jazz improvisation performed using nonsense syllables.

**Scat syllables**

The term scat syllables refers to phonemes or syllables used by a vocalist in either improvised or non-improvised lines. The distinction between “scat syllables” and “scat” recognises that the presence of nonsense syllables does not necessarily indicate improvising is occurring. For example, scat syllables may appear in jazz choral or vocal repertoire where the arrangement has predetermined a specific vocal articulation (e.g., Zegree, 2002, p. 54).

**Solo**

In music, the term solo refers to the featured performance of a single instrument or voice, with or without musical accompaniment. In jazz, the term takes on the additional attribute of referring specifically to the improvised section of a song usually sandwiched between the renditions of the head. Although the head may be performed by a single featured instrument or voice, in the jazz context, solo more commonly refers to the improvised portions of a song (e.g., Sher, 1988, p. 308).
**Swing**

Swing is a rhythmic device in a song which subdivides the beat unequally where the first unit is longer in length than the other. It is considered a common characteristic of jazz. Swing is also used to describe a genre of music generally containing the aforementioned rhythmic characteristic.

**Transcribing**

The term transcribing is used to describe the act of listening then notating a musical excerpt. The process is often used in jazz education as a method of learning or analysing a performer’s solo. Recent usage shows some musicians apply the term to methodically committing a solo to memory without the use of notation. Some educators now distinguish between written (notated) and aural (memorised) transcribing. Both approaches utilise repetitive listening as the key element.

**Vocalese**

The term refers to the vocal performance of a previously recorded, improvised, jazz instrumental solo. Preparation of the vocal rendition involves crafting lyric to attach to each note that accurately observes the rhythm of the original instrumental performance.

**Vocalise**

The term refers to vocal exercises that employ non-semantic syllables in place of lyric.
"I COULD WRITE A BOOK!"


