

**The acquisition of jazz improvisation skills: Collective case studies with six South  
African jazz musicians**

by

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## Declaration

I declare that the work that has been done in this dissertation is my own original work and have not previously been used or submitted for degree purposes at any other University. References have been listed and acknowledged.

Signature:

Date:

“Music is your own experience, your own thoughts, your wisdom. If you don’t live it, it won’t come out of your horn. They teach you there’s a boundary line to music. But, man, there’s no boundary line to art.”

Charlie Parker

## ABSTRACT

The study aimed to explore and understand how six South African jazz musicians acquire and practise the skill of jazz improvisation. Formative influences and practice methods were studied with the hope of identifying factors that are unique to the South African jazz context.

The study followed a qualitative research paradigm, with a collective case study design. Data were gathered through semi-structured interviews which allowed the researcher to probe issues of interest that arose during the course of the interview. The interview questions focused on the musical background, formative and ongoing influences, practice techniques, and improvisation acquisition methods of jazz musicians.

The sample consisted of six expert South African jazz musicians with national and international performance, as well as recording, experience. Following the collection of the data, the results were transcribed, thoroughly analysed and then triangulated to ensure a reliable result. The data revealed three superordinate themes: 1) early and later influences; 2) motivation; and 3) processes in acquiring improvisational skills.

This set of South African jazz musicians revealed that early and later influences include a combination of being self-taught and formal lessons, the black South African church setting, family members, active listening, transcribing, imitation, working with various musicians, and, the limitations of the apartheid era on the development of black musicians.

Intrinsic and extrinsic motivators shape the manner in which South African jazz musicians view and approach jazz improvisation. It was found that their attitudes and values play a significant role, pertaining to improvisation, factors that affect the transition from general to stylistic improvisation, and, the issue of musical integrity in relation to written or memorised solos.

The study revealed that the processes in acquiring improvisational skills include and encompass organic versus structured methods of learning, which includes formal and informal practice, and the importance of issues such as understanding the fundamental jazz rudiments and techniques, developing an identity, authentic self-expression, using mistakes

as an opportunity to learn, and the transference of knowledge from an aural to cognitive understanding.

The research leads to the conclusion that although each musician has a unique musical journey, there are elements in the acquisition of jazz improvisation skills that are inescapable such as honing a good technique, intrinsic motivation, active listening, effective practice routines, formal and informal learning, formal and informal practicing, and the development of a unique ‘voice’. The research identifies unique self-theories, experiences and cultural components that guide the ways six South African jazz musicians acquire improvisation skills.

**Keywords:**

Improvisation; Jazz; Acquisition of skills; Practice; South African jazz musicians; Collective case study; Expression; Self-theories

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# Chapter 1

## Introduction

### 1.1 Background and rationale

“Improvisation enjoys the curious distinction of being the most widely practiced of all musical activities and the least acknowledged and understood” (MacDonald, Wilson & Miell 2012: 242).

As a jazz pianist and accompanist I have had the opportunity of working with numerous jazz musicians possessing various skill levels and backgrounds, including those from a purely jazz background, and those with initial training in Western classical music. I have found that in a professional environment, a jazz musician’s artistic acumen is determined by their skilfulness in improvisation, stylistic interpretation, expressiveness, and knowledge of the diverse meanings and functions of harmonic progressions.

My approach to practicing jazz and improvisational skills is one that was recommended by my piano teacher. It involves a combination of the following: 1) building traditional jazz repertoire in all twelve keys; 2) having a theoretical understanding of jazz scales and their relation to jazz chords; 3) practical application of jazz scales and chords; 4) playing transcriptions of improvisations by iconic jazz masters; and 5) attending jam sessions and interacting with fellow jazz musicians.

My experience and interest in improvisation have both led me to question the acquisition and process of improvising. How do other musicians practise improvisation? Does everyone have the ability to improvise? What is the role of listening in improvisation? Does memory improve one’s ability to improvise? What are the most effective methods of acquiring improvisational skills? These are but a few questions that have sparked my interest in this field.

Numerous authors have supported the claim that improvisation is a spontaneous musical activity that occurs in real-time (Berendt 1992; Berliner 1994; DeVeaux 2009; Porter, Ullman & Hazell 1993; van der Laan 2011). Improvisation commonly occurs in the jazz idiom, with

a group of musicians creating melodic and rhythmic ideas over a fixed harmonic progression and tempo.

Although improvisation is mainly associated with the jazz idiom, improvisation was common during the Baroque era (ca 1600-1750), with Johann Sebastian Bach as one of the foremost improvisers of the time. According to Collins and Carter (2001: 102-103), there are several similarities between jazz improvisation and Baroque improvisation, such as the use of counterpoint, the use of bass and keyboard instruments (basso continuo), and the importance of emotional expression. During the Baroque era, it was normal for composers to show their expertise by improvising complex fugues in real-time. Handel improvised melodies on the organ during church services, in a similar manner to modern-day musicians who improvise during jam sessions and concerts.

MacDonald *et al.* (2012: 246) state that there are four key characteristics of improvisation: creativity, spontaneity, social interaction, and accessibility to all. The process of improvisation in the social context (non-musical) is especially emphasised as it not only focuses on the product, but also on the processes involved in generating improvisations. This highlights the importance of improvisation as a collaborative process.

Improvisation is a process that takes place in real-time, and a distinction between the improvisational process and composition needs to be made. Steve Lacy (in van der Laan 2011: n.d.) writes the following regarding improvisation and composition: “In fifteen seconds the difference between composition and improvisation is that in composition you have all the time to decide what to say in fifteen seconds, while in improvisation you have 15 seconds”. This statement is reinforced by Lehmann, Sloboda and Woody (2007: 136), Johnson-Laird (2002: 415), and Thompson (2008: 198), who mention that composers are at liberty to write down everything that they think of, and may not necessarily experience time constraints, whereas writing down solos would eradicate the notion of improvisation being a real-time spontaneous and highly creative endeavour. Furthermore, improvisation does not require that one reads or memorises a score, and jazz players are more at liberty to add articulation themselves according to their inherent musical sensitivities.

Thompson (2008: 199) further states that improvisation is an unprompted and creative composition, which, although not written down, requires intense thought from the player in

order for the solos to sound original. Porter *et al.* (1993: 453) also highlight the distinction between composition and improvisation. They classify jazz musicians as composers of sorts, due to the fact that their improvisations may be regarded as unprompted compositions. Lehmann *et al.* (2007: 134-135) stress a significant difference between a composer and an improvising musician. The composition process takes place in private, as composers are able to examine and correct their work without any public scrutiny. In contrast, jazz improvisers construct their improvisation (composition) in the moment, on stage, and rely on immediate feedback from fellow musicians and the public.

Classically trained musicians are often under the impression that when jazz musicians improvise, they devise a completely new solo each time they play; however, Berliner (1994) (in Lehmann *et al.* 2007: 136) proposes that jazz musicians rather utilise a “collective memory composition”. Improvised sections are drawn from one’s existing musical expertise, recollections, and desired results. Improvisation may occur in one of two settings - as a soloist or as part of an ensemble. The skill of solo improvisation has been portrayed by Pressing (1987: 5) as “closed” improvisation as it relies on an individual’s capabilities, whereas ensemble improvisation is defined as “open” improvisation.

Practising improvisation involves both work and play. Play emphasises the enjoyment of music and incorporates the physical, cognitive, and emotional aspects of practice; whereas work requires extensive in-depth practise, so that the behaviour and performances may be prolonged and expanded (Lehmann *et al.* 2007: 65). The acquisition of a musical skill requires tuition and practise, however, Lehmann *et al.* (2007: 62) suggest that some performers (not genre specific) may guard the secrets to their success, or hide any weaknesses or challenges that they may experience for fear of appearing inadequate.

Expert jazz musicians may often not recall the practising methods that they used in their earlier years, and a significant number of them develop their improvisational skills on their own without formal instruction or tuition. This results in an interesting and unique style of improvisation, and a novel manner of consolidating improvisational skills. The acquisition of improvisational skills is clearly a complex issue; nevertheless, this study intends to investigate a variety of South African jazz musicians in order to understand their typical improvisation idiosyncrasies. A preliminary literature search on the acquisition of jazz

improvisation and practice techniques has revealed paucity in research about the manner in which South African jazz musicians practise and acquire improvisation skills.

## **1.2 Aim of the study**

This study aims to investigate and understand how six South African jazz musicians improvise, understand their experience of improvisation, and how they acquire improvisational skills. Furthermore, formative influences and the actual practising of improvisation will be studied. Given the fact that South African jazz musicians have a unique and eclectic context within which they develop their skills, factors relating to this will be highlighted. Six South African jazz musicians specializing in piano, bass guitar, drums, saxophone, or voice, will be included as case studies.

## **1.3 Research questions**

### **Primary research question**

How do six South African jazz musicians acquire and practice the skill of jazz improvisation?

### **Secondary research questions**

Subsequent sub-questions are proposed to further elaborate on the primary research question:

- What are the most prominent formative influences in the acquisition of improvisational skills?
- How do six South African jazz musicians practise jazz improvisational skills, and what role does formal and informal practice play?
- How has the South African context contributed to a unique improvisational style?
- What are the similarities and differences between various jazz instrumentalists and their acquisition and practice of improvisational skill?

## 1.4 Methodology

An in-depth description of the methodology applied throughout the research process is presented in chapter three. The following serves as a brief overview of the process employed.

A qualitative research paradigm through collective case studies allows for the interpretation and evaluation of the data being collected in order to broaden knowledge on the main subject, and to assess the effectiveness of certain concepts related to the issue. For the purpose of this research, a collective case study was applied, as it not only allows the researcher to detect common themes relating to the literature, but it also allows one to examine aspects of the research from the various perspectives of the participants involved.

The sample group comprised of six professional jazz instrumentalists, namely two drummers, two bass players, one pianist, and one saxophone player. The selected participants were required to meet the following criteria:

1. Participants were required to have both national and international performance experience as jazz musicians.
2. Participants needed to have substantial recording experience in the studio and/or live.
3. Each participant needed to be fluent in, and be able to understand, English.
4. The participants needed to have access to a telephone and e-mail.
5. A requirement was that all participants be South African citizens and residents, due to the aims of the study and for travelling purposes.

The selected participants were, and still are, largely influential in the South African jazz scene, and for the purpose of obtaining a more holistic result, both institution-trained and self-taught musicians were interviewed. Participants were not subjected to any physical or emotional injury, or any unnecessary anxiety, humiliation, or any life threatening situations. Each participant was assigned a unique identification code that would be used throughout the analysis and discussion of results for the sake of anonymity, unless they permitted, in writing, for their real names to be used.

The interview transcripts will be analysed based on Creswell's (1998: 150) data analysis spiral consisting of these four processes:

- Organisation: Organising the data into smaller systematic units.
- Perusal: This stage involves surveying the collected data several times to get a better understanding. This stage helps with identifying common themes.
- Classification: Grouping the identified themes from the perusal into the applicable categories.
- Synthesis: Creating an interpretation of the findings for the reader.

The themes and sub-themes were then elaborated in the fourth chapter.

### 1.5 Definition of key concepts

The following table provides definitions of the main terms used throughout the study:

**Table 1.1: Definitions of key concepts**

Acquisition	Acquisition refers to both the progression of a skill and the process of gaining an ability, which in the following context, is improvisation. ( <a href="http://www.oxforddictionaries.com">http://www.oxforddictionaries.com</a> )
Improvisation	Improvisation refers to a real-time musical process, which involves an original rendition or rearrangement of a work; in essence, it is composing on the spot (Nettl 2001: 94). Martin and Waters (2012: 385) define improvisation as the “essence of jazz”, and state that it encompasses impromptu creation of a melody within a piece, based on the given harmony and form.
Jazz	Tucker (2001: 903-904) provides three meanings for the term “jazz”. The first refers to it as a style of music developed in the 20 <sup>th</sup> century by African Americans. Secondly the terms refers to a spontaneous, “creative process” involved in performance. The final meaning refers to the characteristics of playing in the jazz style, which include specific or characteristic rhythmic, melodic, and harmonic innuendos.
Practice	The term is used to indicate a habitual action/activity which occurs



	over a significant period of time, in the hope of developing or acquiring a skill. ( <a href="http://www.oxforddictionaries.com">http://www.oxforddictionaries.com</a> )
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## 1.6 Chapter outline

Chapter one provides an introduction and rationale to the study, and also elaborates on the research questions and aims of the study. An overview of the methodology and a chapter outline is also included.

Chapter two is dedicated to a review of the relevant literature, which include references to the acquisition of jazz skills, models of improvisation, mental rehearsals, and memorisation.

Chapter three provides an in-depth description of the research design, which includes the selection of participants, data collection strategies, and analysis. The role of the researcher is defined, and the quality criterion is also outlined. Ethical considerations pertaining to the research are also included.

Chapter four contains the analysis of the interview transcripts. The superordinate themes and subordinate themes are identified, followed by the relevant quotations from the interview transcripts.

Chapter five aims to discuss the findings of the research through a correlation of the data themes with new and existing literature, as discussed in the second chapter.

Chapter six serves as the concluding chapter. The main outcomes of the study and answers to the research questions are presented. The limitations and contributions of the study are also discussed, and possible contributions of the study and recommendations for further research are also reviewed.

A list of sources used throughout the study and appendices are included at the end.

## Chapter 2

### Literature review

#### 2.1 Introduction

Porter, Ullman, and Hazell (1993: 449, 462) depict improvisation as “spontaneous composition”. They further define improvisation as “The spontaneous creating of an original piece of music. It requires a great deal of practice and intimate knowledge of the style of music in which one desires to create”.

In order to fully comprehend jazz musicians’ improvisation and practice techniques, an understanding of what practicing and improvisation entails is essential. It is evident that a vast amount of research is focused on practising in the classical music domain; however, recently more research aims to understand the practising processes in jazz and other musical genres.

Within the last twenty-five years, the bulk of research conducted on the art of practising has been focused on the classical music domain. Studies on improvisation in the Western music genre prior to the 1990s are listed in Pressing (1987: 9), by Ferand (1938, 1961), Sadie (1983), and Pressing (1984b, c). However, there is also a substantial amount of literature on improvisation based on the music of non-Western traditions such as Ghanaian music and Middle Eastern music improvisatory traditions. These include Datta and Lath (1967), Nettl (1974), Locke (1979), Charles (1982), Avery (1984), Park (1985), Reck (1983), and Lipiczky (1985), among others.

This literature review will include research on the acquisition of musical skills, models of improvisation, creative processes, formal and informal practice, memorisation, and motivation.

#### 2.2 Acquisition of jazz skills

Sloboda (1985: 216) cites several primary concepts required for the acquisition of a skill, specifically: the acquisition of habits, factual and procedural knowledge, goal formation,

repetition, and feedback. Sloboda stresses that habits are automatic actions and as a result require little or no effort. The second step, factual and procedural knowledge, underscores the need for knowledge to progress from being factual to procedural, which entails not only comprehension, but also application and synthesis. The setting of achievable goals is integral to skill acquisition, which is further reliant on motivation. Repetition and feedback allow for the reinforcement and improvement of a skill.

Sloboda (1985: 216) further states that skill acquisition involves these subsequent phases: the cognitive, associative, and autonomous stages. The initial cognitive stage involves theoretical knowledge about the skill and the activities required. With continued practice and cultivation of the skill, it becomes cognisant, which is the associative stage, leading to the concluding autonomous stage, which involves “repetition and feedback”, resulting in the fluidity and effortless mastery of the skill (Woody 2014). Anderson (1982), cited by Sloboda (1985: 216), describes these stages as a progression in which an individual conceives the desired outcome, cultivates the skill, and continues to progress; Sloboda then explicates this in relation to practical musicianship. In addition, Pressing (1987: 5) highlights the importance of feedback in improvisation, mentioning that it allows for the correction of errors, motivation, and provides a conduit for a performer to evolve from their current level to their desired state.

Lehmann *et al.* (2001: 138, 139) write that the initial or formative stage of any jazz musician entails the acquisition of knowledge and skills, and the quality thereof, which is largely determined by the amount of practice and the value of instruction. An important method of practice that has promoted growth in jazz musicians is the study of the improvisations of jazz masters. Inexperienced jazz musicians are habitually required to listen to recordings of other experts and transcribe their efforts, and at some stage imitate the specific sound of a prominent musician to aid them in their growth.

While the presence of a teacher is one that will benefit an aspiring musician, Lehmann *et al.* (2007: 139) note that jazz musicians are further able to learn from each other in informal settings, such as jam sessions, by imitating other musicians, trying out new ideas, and receiving commentary from their peers. Exposure to other musicians is therefore critical in attaining jazz skills. The use of play-along recordings is also a valuable tool in the understanding and assimilation of the various jazz styles.

Berliner (1994: 65) expresses that the learning of new repertoire and ensemble playing is essential for any novice that aspires to improve their playing. The knowledge of the diverse blues progressions and rhythm changes is a necessity. Furthermore, he notes that the thorough comprehension of the harmonic progressions of a song is fundamental in the structuring of a solo, thus an understanding of jazz theory is crucial. Understanding theory allows a musician to analyse chord structures, substitutions and extensions, chord symbols and musical form. It also enhances aural ability.

Madura (1996: 252) conducted a qualitative study of 101 college vocal students in an attempt to explore associations connecting jazz improvisation attainment and numerous autonomous variables, such as knowledge of jazz theory, experience, gender, and creativity. The research required the sample group to improvise over a blues progression and a ii-V-I progression. Jazz theory knowledge, imitative ability, and jazz experience were found to be essential to the knowledge of both harmonic progressions and skill in improvisation.

May (2003: 245) performed a study in which the effect of variables such as jazz theory knowledge, aural facility, and background affected achievement in instrumental jazz improvisation. The sample group consisted of 73 undergraduate jazz wind players who stemmed from five mid-western universities in the United States which had reputable jazz programs. The study ascertained that technical ability and expression are essential in the assessment of jazz improvisation. Moreover, self-evaluation was found to be critical to achievement in improvisation. Cognitive, aural, and imitative skills were also determined to be fundamental to jazz improvisation.

The acquisition of jazz skills is complex and includes the importance of feedback, active listening, informal practice, and a knowledge of jazz theory.

### **2.3 Models of improvisation**

Various models of improvisation have been developed over time to understand how musicians improvise and to track the step by step process of acquiring the skill of improvisation. One of the earliest models is that by Pressing (1987: 19), who outlined an improvisation model which sought to establish how individuals improvised, acquired

improvisational skills and certain behaviours related to the acquisition of these skills through the employment of what he refers to as “event cluster generation”. The first section of his model divided the improvisation into certain situations, which would trigger certain actions based on the time and musical requirements. These were further reliant on the predetermined goals and the functioning of the long-term memory in the hope of producing the desired behaviour - improvised solo.

According to Lehmann *et al.* (2007: 143), Kratus (1991) devised a seven stage model that can be used to teach beginners how to improvise. The model entails the following steps:

- 1) Exploration;
- 2) Process-oriented improvisation;
- 3) Product-oriented improvisation;
- 4) Fluid improvisation;
- 5) Structural improvisation;
- 6) Stylistic improvisation;
- 7) Personal improvisation.

These levels shift the learner from experimentation to a level where they are able to consciously and independently think about what they are playing, whilst improving the essential technical aspects of their playing, eventually leading to a stage where they are able to create their own personal style of playing.

Thompson (2008: 199) furthers Kratus’s model by revealing that there is often a paucity of ideas and patterns that apprentice improvisers have, and as a consequence their solos often sound alike. Additionally, Thompson mentions two models that were suggested by Pressing (1984, 1988), specifically “associative generation” and “interrupt generation”. Associative generation involves the improviser introducing ideas that are similar to preceding ideas, or variations thereof. In contrast, interrupt generation encourages players to formulate completely original concepts to augment their solos. The preferred generative method used is reliant on the amount of repetition that one uses. Therefore an improviser that uses a substantial amount of recurring ideas would be encouraged to use interrupt generation in order for new ideas to be added to their solos.

Norgaard (2011) conducted a qualitative study in which he sought to examine the thoughts of jazz musicians during their improvised solos. The sample group was comprised of seven jazz musicians who had extensive experience in both audio and studio recordings, live performances, touring, and jazz music education. Interviews were conducted with each of the musicians wherein they had to play a head (melody) over an F-blues progression at a tempo of 212 beats per minute and improvise at their own discretion, while accompanied by a drum track. All the instruments (bass, violin, trumpet, piano, guitar, alto saxophone and trombone) were digitally recorded, and each session was documented on video. The pianist was the only musician who played without drum accompaniment. Thereafter the participants were requested to provide their thoughts on their solos, which Norgaard then transcribed.

The research led to Norgaard (2011: 116) identifying six prevalent themes and four approaches to improvisation. The four generative strategies outlined included:

- 1) Memorised music that the researcher referred to as “auditory memories” which the players often drew from to facilitate the inclusion of frequently used ideas and patterns;
- 2) Note selection based on the harmonies of the chord structures, and identifying the necessary scale options and tensions;
- 3) Note selection based on the melodic contour and the identification of scales that could work for the outlined rhythm changes;
- 4) Variations or restatements of previously expressed material.

The two essential techniques that were applied by all the artists included taking account of technical, harmonic, melodic, and rhythmic characteristics of sections well in advance, and evaluating their solos as they played so as to distinguish segments to omit or expand in their playing.

Norgaard (2001: 121) identified six themes from the artists’ reflections on their thought processes while improvising. The pianist further emphasised that the chord structures determined the course of his solo. Automaticity was a theme that was also prevalent during the interviews, with some sections being directed by unconscious thoughts. A need for shaping the solo was also recorded, as players felt it was essential to build their solos through the use of notes and patterns to create a pinnacle in their solos, and then condense the atmosphere again, which was effectively referred to as “architectural structure”. Interaction

was also found to be a dominant theme, as players indicated that having an audience or interacting with other players affected their choices. Being in a confined environment thus provided a restriction to the study. In addition, the use of auditory memory as a resource for inspiration, and designing and structuring ideas internally beforehand, proved to be topics.

Mendonça and Wallace (2004: 1) sought to examine the cognitive processes involved in creativity and time (tempo) in improvisation through the observation and analysis of jazz duos during improvisation. They describe creative cognitive processes as necessitating generation and exploration of original and creative ideas. The study found that musicians applied similar cognitive strategies regardless of the situation, and further highlighted the significance of temporal cognition and the necessity of the collaboration of the two. This involved the participants watching the video footage of their performances while providing verbal reflections. The study concluded that free (rubato) pieces require more cognitive preparation and exertion, as opposed to jazz compositions that are in time.

The similarities in the results of the individual studies conducted by Madura (1996), May (2003), Mendonça and Wallace (2004), and Norgaard (2011), provide evidence that there are certain variables that are significant for one to make the adjustment from a novice to an expert improviser. These include the following: knowledge of jazz theory, imitative (aural) ability, technical ability, self-evaluation, and cognitive skills.

It seems clear that research into jazz improvisation involves complex generative and cognitive processes. However, the exact methods and amount of time jazz musicians spend on practising improvisation are still unclear.

## **2.4 Practicing**

Ericsson and Lehmann (1999: 695), define practice as follows:

Structured activity, often designed by teachers or coaches with the explicit goal of increasing an individual's current level of performance. In contrast to work and play, it requires the generation of specific goals for improving and the monitoring of various aspects of performance.

Lehmann *et al.* (2007: 63) and Jørgensen *et al.* (2009: 265) highlight that, essentially, practice should result in both learning and a positive adaption of behaviour. The simulation of a performing environment or aspects thereof is integral for valuable results when practising. Moreover, practicing involves the setting of low to high order tasks, and the accomplishment of the outlined outcomes. Technical aspects and interpretation are also improved as a result of practice. The development of skills such as aural training, performance, and memorisation is integral.

#### **2.4.1 Formal and informal**

Lehmann *et al.* (2007: 65) emphasize two forms of practice, namely informal and formal practice. Formal practice involves setting unequivocal goals and receiving definite feedback on areas that have improved, and those that require expansion. The practicing cycle therefore engrosses four procedures: playing the required material; evaluating the standard of the playing; playing the material differently through the incorporation of aspects from the evaluation; and evaluation of the last attempt, so that the necessary feedback may be acquired. The article proceeds to stress the importance of the practicing environment and activities that promote growth in the positive development of musical ability. Pertaining to jazz musicians, a gig or jam session may be seen as a form of informal practice, as their peers can comment on their solos.

According to Lehmann *et al.* (2007: 62), the environment that one practises in is essential to the quality of practice, and this includes factors such as the acoustics of a venue, and whether the learner is being supervised or not. Solo practise was found to be a vital method for advanced classical musicians, which may transcend into jazz. The utilisation of backtracks for jazz musicians and attendance of jam sessions are essential practicing techniques.

Lehmann *et al.* (2007: 75) further underline fundamental aspects that endorse good practice, namely, the human aspect, the time factor, and the phases of practice. The human aspect relates to variables such as age, physiological state, personality, maturity, education, and socio-economic factors, among other issues. The time factor refers to whether one practises for the required amount of time, the effectiveness of the practice techniques, and supervision. Finally, the microstructure of practice consists of four stages, which are as follows:



- i. Reading through the piece, listening to the full work, and the analysis thereof.
- ii. Practising the piece in segments and combining them as one advances; interpreting the piece based on previous knowledge or from the analysis; motor actions become automatic and initial memorisation begins. This level is reached more quickly by advanced performers, due to experience and technical ability.
- iii. Piece has been thoroughly memorised and is ready for performance. Performer should be able to play it slowly and at the correct tempo, interpret it effectually, and simulate the performance environment.
- iv. This involves the performer maintaining the performance and memorisation of the piece, and being able to interpret it even further, if possible.

The second step of the above-mentioned microstructure focuses on the part-whole method of practice. This allows the learner to play through the piece, and in doing so, identify the more complex passages. Thereafter the player will work on the complex sections, and then combine them with the simpler sections, so that the work may eventually be played in its entirety. This stage is time consuming for advanced players, as they aim for technical accuracy. Instrumentalists should also be given pieces that focus on the specific challenges that they will encounter. Lehmann *et al.* (2007: 62) note that some musicians may have a negative attitude towards practising as a result of negative experiences.

Jørgensen *et al.* (2009: 265) mention that good practice is also reliant on two variables, namely quality and quantity, through the employment of the schema theory. Good practice is dependent on the manner in which practice sessions are administered. The schema theory promotes the notion of adding variety to practice sessions, e.g. changing the tempo, articulation, or dynamics. This promotes constructivism in that this method can be transferred to the interpretation of works to follow. Additionally, Jørgensen *et al.* (2009: 267) note three strategies that have been suggested for planning practice sessions, which are: the organisation of practice, setting goals and relevant approaches, and expanding interpretation. Concerning the organisation of practice, it is vital for instrumentalists to practise on a daily basis. Various musicians practise at the same time every day, while a number of them arrange their practice times according to their daily schedules. It is important for every player to know their peak times, i.e. what time(s) of the day they are most productive, so that they can plan their practising times for those specific time slots. The most successful conservatoire students were

found to practise in the morning, relax during the day, and then practise again at night. Within deciding on practice times it is also vital to distribute time evenly according to the work that needs to be done, i.e. technical work, sight-reading, and repertoire. Lehmann *et al.* (2007: 63) mention activities that musicians should engage in to promote growth during practice sessions. These include reading, memorising, score analysis, listening to recordings and to themselves, technical exercises, and playing through their programs. The rehearsal of new repertoire and areas in a piece that may challenge the learner require the most effort.

Berliner (1994: 117) and Lehmann *et al.* (2007: 67) declare that an important product of practice is that an understanding of the music should be achieved, as it is possible for one to just play a work without the appropriate understanding. Effective practice also leads to memorisation, which allows the player to create mental representations and to also play the piece from any point without experiencing difficulties. Essentially, Lehmann *et al.* (2007: 68) state that effective practice should lead to automaticity of sensorimotor skills, which entails minimal effort being put into the playing. The performers should rather be focusing on other cognitive aspects of their playing, such as performance anxiety and performance development, apart from the skill factor. Once a player is able to grasp the technical aspects of their playing through practice, it enables them to develop their own sound and conjure up the emotional character of a piece.

It is therefore evident that the quality of practice plays an essential role in promoting improvement.

#### **2.4.2 Duration**

Lehmann *et al.* (2007: 71) note that the amount of time that a musician practises is vital, as developing a skill is time-reliant. Ericsson, Krampe, and Tesch-Römer conducted a seminal study in 1993 which focused on the correlation between practice times and performance levels. Their findings were that the top students had practised for a greater overall duration, which was in the region of 7400 hours by the time that they reached the age of 18. The group that followed reached 5300 hours, with the least amount of practice time being 3400 hours. Sosniak (1985: 19) conducted similar research, which also proved that expert performers do reach several thousand hours of practice by a certain age.

Research by Jørgensen (1997), and Lammers and Kruger (2006) (cited in Jørgensen & Hallam 2009: 266), focusing on conservatoire musicians and American and Japanese students respectively, found that keyboard players practised more than other instrument groups, due to the technical and physiological demands of the different instruments. Research by Hallam (2001) also found that practice duration is affected by assessments, as learners were found to practise more when exams drew nearer. Practise declined the day after a lesson and during holidays. Two individual studies conducted in the same year by Jørgensen and Hallam (2009: 266), and Altenmüller and Schneider (2009: 341), highlight that practice duration is affected by the age and level of the learner. Younger learners were found to practise almost every day, and players that were intent on becoming professional performers practised more than amateur musicians. The appropriate duration of practice sessions is acquired through experience and knowledge. Musicians are also required to take breaks during their practice sessions, as exhaustion and unwarranted practice lead to futile results. Lehmann *et al.* (2007: 138) further state that research also found that professional musicians practise less once they enter the profession due to the demands of performances and rehearsals.

There is not much research evidence pertaining to jazz practice duration. The appropriate amount of deliberate practice time can lead to an improvement in technique, and an improvement in the standard of performances. However, this varies according to the instrument types and the physiology of an individual.

### **2.4.3 Physiology (motor skills)**

According to Lehmann *et al.* (2007: 69) and Thompson (2008: 139), developments in neurophysiology have led to the use of imaging techniques, which allow neurophysiologists to observe a musician's brain while they are practising. These advancements have also allowed them to observe how people listen to and visualise music, which in turn has led to the discovery that the memory area of the right brain is particularly very active. This was also reinforced in earlier research conducted by Pressing (1987: 1), who declared that improvisation entails the transmission of signals from the nervous system to the endocrinal and muscle systems, which in turn produce specific motor actions.

For the avoidance of negative physiological or psychological consequences, Gaunt and Hallam (2009: 275) and Lehmann *et al.* (2007: 67) highlight that adults can often sustain approximately four to five hours of practise, due to the intense effort that is required when practising. The body is able to respond internally and externally to the demands required for different aspects of music formulation, whether it is lung aptitude or muscular potency for brass players and singers, or inward rotation for pianists, as long as the actions are habitual. Excessive practise may lead to negative physiological results, i.e. injuries, such as musculoskeletal troubles, persistent pain, skin conditions, and neurological damage. These vary depending on the instrument that one plays. Research by Fishbein and Middlestadt (1989), cited by Lehmann *et al.* (2007: 69), established that 75 percent of orchestral musicians have suffered from one or more of these conditions, and furthermore 76 percent mentioned that it imposed on their playing. Lehmann *et al.* (2007: 65) also mentioned that performances are usually enjoyable for musicians, and as a result thereof, it is highly unlikely for them to endure any physiological or psychological deterioration.

The two sections above focused on research based on classical music skill acquisition. However, this is applicable to the attainment of jazz improvisational skills, as the acquisition of both proficiencies require time and effort.

#### **2.4.4 Mental rehearsal and imagery**

Mental rehearsal and imagery is a skill many performing artists use. Jørgensen *et al.* (2009: 269) assert that mental rehearsal and imagery is essential in the learning and memorisation of a piece. It involves practising a piece away from the instrument, and taking time to think through the work, while also imagining the physical movements as though you were actually performing. Gabrielsson (1999: 505) takes this further by expressing that mental rehearsals, pertaining to music performance, entail the “imaginary rehearsal” of an instrumental work, without performing any physical movements. This form of practice emphasises the importance of intense memorisation of a musical work before physical practise, and the utilization of one’s “inner ear”.

Lehmann *et al.* (2007: 68) maintain that the development of cognitive images allows musicians to apply their skills at various levels of difficulty. Learning a new piece requires

the systematic building on previous knowledge, as the learning and understanding of new repertoire requires the use of preceding practice methods. This was reflected in the study titled *Cognition in Improvisation: An exploratory study*, by Hargreaves, Cork, and Sutton, (1991) (in Lehmann *et al.* 2007: 134), who studied professional and semi-professional jazz pianists. A sample group was given a backing track with bass guitar and left hand piano voicing accompaniment. The study required the participants to improvise a melody with their right hand. While receiving feedback from the participants the professional jazz pianists revealed that they had pre-thought the improvisation prior to them playing it, based on the harmonies, melody, technical aspects, and the image that they intended to portray. In contrast to the professionals, semi-professional pianists could not recall much of the content that they had played, and had rather focused on individual aspects of the recording such as harmony, whereas the experts had mentally rehearsed the improvisation in its entirety beforehand. The study points to the importance of mental imagery in the mastery of the skill of improvisation.

#### **2.4.5 Motivation, self-regulation, and self-efficacy**

The environment also affects the goals that musicians set for themselves, their self-perception, and belief in their ability to reach those goals. Social approval affects one's self-esteem, confidence, and behaviour. Should the environment prove to be exigent, the individual may capitulate or intensify their effort, which illustrates the significance of behaviour in motivation. Hettema and Kenrick (1992, in Hallam 2009: 286) underlined that if an individual is not pleased with their environment, they have the capacity to transform it or to seek a more conducive environment. Cognition permits one to identify probable causes for behaviour, and to discern whether they should be preserved or modified. Brandimonte, Bruno and Collina (2006: 2, 3) describe cognition as both a mental process and product. Cognition deals with the level at which one gains, forms, transforms, and implements their knowledge

Kelly (1995) and Rotter (1966) (in Hallam 2009: 288) bring to light the actuality that cognition is essential to motivation, as an individual's thoughts affect their perception of their capabilities. Elliot and Dweck (1988) (in Hallam 2009: 288), stressed the distinction between performance and learning goals in education. Performance involves receiving positive reinforcement from an expert, while avoiding negative feedback, to confirm their level of proficiency. Learning goals relate to the acquisition of new skills and knowledge. Studies

conducted by Austin (1988, 1991) and Schmidt (2005) (in Hallam 2009: 288-289) found that in music practice, the mastery of music skills generated more motivation than a competitive environment.

According to Lehmann *et al.* (2007: 64) and Jørgensen and Hallam (2009: 267), motivation is essential to successful practice. Due to the perseverance that is required for practice to be effective, commitment to improvement is crucial, and thus self-motivation is essential. Motivation not only affects the quality of practice, but also the quantity thereof. The level of motivation in instrumentalists is also a determinant in whether they will continue with music at a professional level or not. Hallam (2009: 285) states that motivation is understood to be intrinsic and reliant on one's environment, and at times entails a collaboration of the two when cognition is involved. Hallam additionally draws attention to the notion of motivation in music being analysed over time, which further highlights individuality, social approval, cognition, self-determination, and the setting of goals. Individuality emphasizes biological distinctions in people, their personalities, perceptions, and identities, based on the environments in which they exist. Csikzentmihalyi (1990) and Good and Brophy (1991), as quoted by Hallam (2009: 291), affirmed that enjoyment and intrinsic motivation are critical to the construction of one's self-identity. The intrinsic motivation is heightened by an individual being presented with challenges that they are capable of conquering.

Motte-Haber (1984) and Nagel (1987) (in Hallam 2009: 287), highlighted the significance of personal motivation, and the role of personal contentment in music performances, and how they aid motivation. Gellrich (1986), (in Hallam 2009: 287), noted three models of motivation, namely: general achievement motivation; music-oriented achievement motivation; and a sensual-aesthetic motivation. Intrinsic motivation is not only reliant on the determination of an individual, but also, according to O'Neill (1999) (in Hallam 2009: 288), on the value that they place on their musical preparation, which further predicts self-efficacy. Identity, self-efficacy and self-concept determine the goals that an individual sets, which are further reliant on their cognition and environment. Cognition allows one to envision their future self, and this may be a source of motivation. Hallam proceeds to reveal that motivation has to become sustained behaviour, in order for an expert level in music performance to be reached.

According to Ely and Rashkin (2005: 399), self-efficacy refers to an awareness of an individual's abilities and potential, which in turn influence and establish their behaviours. Low self-efficacy leads individuals to become passive and to quit easily if they fail to succeed, whereas someone with a high self-efficacy is active about their learning; should they fail, they try alternative methods. Bandura's social learning theory emphasises four points that influence the acquisition of self-efficacy: performance achievements; explicit study; verbal persuasion; and a physical/affective status. Self-efficacy is influenced by self-belief and esteem. Petty (2009: 60) also avers that the emotional, environmental and psychological factors, as well as preceding failures, may lead to an absence of motivation. Hallam (2009: 291) states that the study of drop-outs has led researchers to construe that there are numerous reasons for lack of motivation in music, e.g. one's socio-economic status, or an inferior self-perception. However, these studies have only been conducted on Western classical music players.

In order for learners to accurately judge and monitor their own progress, practising needs to become a habit. Studies by Sosniak (1995), Lehmann (1997) and Davidson, Sloboda, and Howe (1996), found that learners with the best results had received a lot more help and encouragement to practise from their teachers than others with lesser results. Self-regulation is defined by Ely and Rashkin (2005: 402) as a "systematic process" for learning, with the utility of intrinsic motivation. This process allows learners to understand new information, build on previous information, and to evaluate and assess their progress. In addition, this process allows for independent yet meaningful learning.

Lehmann *et al.* (2007: 78) note that the setting of goals and feedback is essential to self-regulation. A learner who has reached an appropriate level of self-regulation will be able to make the best use of their practice time to overcome challenges, and find the appropriate methods to make this possible. Self-regulation is largely dependent on the level of motivation that an individual has, and involves a cycle of setting goals, finding tactics with which to approach them, monitoring and evaluating the results, and correcting areas that may need improvement. Hallam (2009: 289) further indicates the necessity of active participation in music in the accomplishment of goals.

Petty (2009: 58) asserts that active learning or participation involves an individual acknowledging their responsibility for their own success or failure, finding tactics to change

the results based on the initial result, and adjusting their mind-set in order to improve their thinking (cognition) and to obtain better conclusions. Asmus (1986: 71) identifies five elemental features in music, to be exact: 1) effort; 2) musical background; 3) classroom environment; 4) musical ability; and 5) affect for music. Austin and Vispoel (1998: 26) note that musical ability and effort are the most exploited by music students. Metacognition is also crucial to motivation as one needs to be conscious of your skills, drawbacks, and effectual means that you can apply in order for motivation to be preserved.

One's belief in their ability to reach predetermined goals is fundamentally dependent on self-efficacy. According to Bandura (1982, in Hallam 2009: 287), self-efficacy allows one to examine the likelihood of success of their outlined goals. McPherson and McCormick (1999) produced a study of 190 pianists (aged between 9 and 18) prior to an external Trinity College, London, examination. The sample group had to complete questionnaires which the researchers would use to assess facets such as self-regulation, motivation, learning, and the quality and quantity of music practice; and their effect on the advancement of performing musicians. The focal points of the research comprised the cognitive strategies and self-regulatory processes involved in learning and self-assessment. The results identified that the duration of practise during the month preceding the exam correlated with the reported practised technical work, and performance anxiety due to the formality of the exam. Furthermore it was established that individuals who practised repertoire, technical work, and creativity for greater periods had higher cognitive degrees and intrinsic motivation. This in turn led to mental rehearsals, and the ability to structure their practice sessions.

The aforementioned confirms that the acquisition of a skill does not only involve physical and cognitive processes, but also one's personal motive for aspiring to be a jazz improviser and the level at which you desire to improvise, will affect one's intrinsic motivation, and in turn, one's self-efficacy and regulation.

## **2.5 Creative processes**

Pinheiro (2011) directed a study that focused on the creative processes that were involved when musicians in New York engaged in a jam session. He highlights five creative processes



involved in jam sessions and four factors that influence the creative procedures that are concerned therein.

The first stage of the creative process, according to Pinheiro (2011: 2), involves selecting the appropriate repertoire, which is determined by the musicians collectively deciding on a tune that they all know, as the harmonic structure contains the basis for improvisation. The second stage requires determining who will play the melody. This proves challenging as certain ornaments, timbres, and attacks are crucial in playing the head in a manner which is stylistically accurate. The solo section is the third aspect of this process, and allows individual musicians to display their improvisational ability while being accompanied by the rhythm section. The harmonic structure of the chosen song determines the direction of the solo section, and the soloists will often solo over predetermined cycles of the song. Soloists should also be able to respond to harmonic or rhythmic variations that are suggested by the rhythm section. Trades follow the solo section and involve the musicians ‘trading’ ideas for a certain amount of bars over the structure of the song. For example, ‘fours’ refer to trades that take place when one soloist improvises for four bars, then another follows for an additional four bars, and so forth. This requires that the musicians concentrate on and understand the structure of the song so as not to get lost while other players are improvising. The final stage is the introduction, which establishes the manner in which the musicians will start the piece, which can either be melodic or harmonic. Prevalent rhythm changes will be used, as agreed on by the players.

The dynamics that influence these stages were found by Pinheiro (2011: 3) to be physical space, interaction among the musicians, communication between the musicians and the audience, and musical competence. The space, acoustic principles, and history of a venue determine how musicians respond to it. Interaction between musicians is indispensable due to repertoire selection, trades, the exchange of ideas, and pure enjoyment. The audience’s response often plays a certain role in determining noteworthy sections of one’s solo, and often encourages players to build on that. The capability of a player also determines how competently they will perform a work, and this can help forge relationships that were previously non-existent among the players.

Johnson-Laird (2002) produced a jazz improvisation prototype which suggests that two algorithms are used in aiding musicians to improvise, and these help distribute the cognitive demands of improvisation between the short- and long-term memories. The cognitive dispute that improvisation presents lies in the fact that musicians have to create solos that incorporate melody, given harmony, and rhythmic variety. The model suggests that the working memory helps the musician to identify their position in the score, comprehend the rhythm changes, and create the appropriate solos. The long term memory allows musicians to incorporate routine patterns, either rhythmic or harmonic, that they frequently use, which isolate the working memory. Johnson-Laird (2002: 439) devised the mnemonic NONCE which defines his model of creativity for the jazz musician: "...creativity is Novel for the individual, Optionally novel for the society, Nondeterministic, dependent on Criteria or constraints, and based on Existing elements" (2002: 420). He concludes that this process is rarely used in the understanding of jazz improvisation, as it does not aid creativity in real-time. The most efficient method involves generating solos based on the genre and without having to access the long-term memory. The third method taps into the long-term memory, and is often used when deciding on chord choices. Extensive practise leads to the expansion of unconscious data which incorporates aspects such as harmony, tempo, and rhythm. These aspects in turn allow musicians to improvise instantaneously.

Pressing (1987: 14) draws attention to the correlation between intuition and creativity. He mentions three approaches to intuition based on literature: Classical Intuitionism, Westcott Contemporary Intuitionism, and positivistic intuitionism. Classical Intuitionism refers to personal and immediate intuition, Westcott Contemporary Intuitionism is based on the relevant facts, while positivistic intuitionism opposes both these views and analyses intuition as a process that is defined by an underlying premise. Osho (2001: vii) defines intuition as: "...something beyond the intellect, something not of the intellect, something coming from some place where intellect is totally unaware. So the intellect can *feel* it, but it cannot explain it." He goes on to mention that intuition is greater than intellect.

Johnson-Laird (2002: 439) suggests melodic and harmonic choices are determined by the current expertise or understanding that a player holds at that given moment. However, rhythmic variety can be manipulated through the use of "prototypes and their variants". Johnson-Laird (2002: 417) further states that a large number of the processes involved in improvisation are unconscious. Lehmann *et al.* (2007: 134) also mention that automaticity

develops as one progresses to become an expert player, and this often results in professional musicians being unable to entirely give an account of all the material that they used in their improvisation, or the reasons therefore.

## 2.6 Memorisation

Noice, Jeffrey, Noice and Chaffin (2008: 67) conducted a study in which the sample was a jazz pianist who stemmed from a musical background and received both classical and jazz training. The study sought to identify where the methods that jazz and classical musicians applied in memorising music differed, if at all. The participant had to learn a bebop head at a performance standard, which he had never seen or heard prior to the investigation; the session was being videotaped. It took him 45 minutes (fifteen in the initial recording, and thirty in the latter which took place ten days later) to learn the work in its entirety. Thereafter the pianist was required to provide feedback about his experience and challenges that he encountered, which were then recorded by the researcher.

This research (Noice *et al.* 2008: 70) was sparked by the notion of classical musicians learning music as it is written, whereas jazz musicians rarely repeat a rendition of a work, due to their liberty to alter harmonies, rhythms, style, and time signature, among other variables. The results found that the pianist's understanding of the harmonic and formal structure was critical to his memorisation of the work, and that the memorisation of the work and rhythms provided the greatest obstacles. An evaluation of the practice session found that connecting the structure of the piece was important, and commencing at the start of a phrase was elemental in the rectification of inaccuracies. In essence, the study established that the methods and attention to structure used in the memorisation of Western music is also applicable to the jazz idiom. Technical aspects were only elaborated on once the formal structure of the work had been wholly understood.

Chaffin, Logan and Begosh (2009: 352) identify two contrasting memories, namely associative chains and content addressable memory. Associative chains develop when one initially learns new repertoire to help them recognise their position within the score. The challenge concerning this method is that once an error is made, the performer will have to resume the piece from the beginning, due to the process of memorisation being unconscious

and requiring purely motor skills. In contrast, content addressable memorisation takes place when one consciously embarks on the memorisation of a work. This approach allows one to develop a recuperation tactic if a setback occurs, therefore conscious processing and a verbal perception are prerequisites. It is therefore safe to deduce that the pianist being observed in Noice *et al.*'s study (2008) merely utilised associative chains in the memorisation of the piece to aid him in the performance thereof.

Addressable memory can be clarified further through the use of expert memory and performance cues. Chaffin *et al.* (2009: 358) state that experts principally depend on their structural and linguistic memories as loci for the failure of their other memories. Highly structured practice, effective retrieval techniques, and the comprehension of unusual material are vital to expert memorisation and performance. Choking, which is defined by Kenny (2011: 150) as the collapse of a performance due to stress or anxiety, occurs when one overthinks the music, which leads to a disruption in the appropriate motor functioning or "freezing". Adequate practice is therefore obligatory. Performance cues allow a performer to identify several starting points in a work that they practise extensively, so as to allow continuation if an error should occur during a performance. These cues are dependent on extensive practise, and allow musicians to perform elaborate works from memory. Performance cues also comprise structural, emotional, motor, and linguistic facets, depending on the nature of the work.

Chaffin *et al.* (2009: 354) describe each of the working memories in detail. The auditory memory, according to research conducted by Finney and Palmer (2003), Halpern Bower (1982), and Fornazzari *et al.* (2006), is illustrated as one's ability to perceive the sound of an entire work in one's head, which allows one to identify the location in the music and material that should follow in order for the auditory remembrance to transpire - hence the requisite for harmonic, melodic, and rhythmic schemes. Motor memory is concerned with the kinaesthetic functioning of joints, muscles, and other sensorimotor functions which aid musicians in the various actions required to play their instruments. Investigations by Rizzolatti and Craighero (2003) led to the validation of the correlation of the motor and sensory systems. Motor memory is significant to associative chaining, and emphasises the importance of sufficient rehearsal.

Visual memory encompasses both the recall of the score and positions on the instrument. The memorisation of a score may provide challenges, as indicated by Noice *et al.* (2009), but this differs for individuals, as some people have photographic memories. The misinterpretation of mental imagery as pictures is rectified by Chaffin *et al.* (2009: 356), defining them as an image of the score, which allows musicians to utilise that as a form of recall, while spatial memory permits one to find their place in a score. Emotional memory clarifies that the need for expression and emotional sensitivity in a performance promote remembrance. Structural memory is centred on the recollection of a work based on its harmonic, rhythmic, and melodic composition, along with its form structure. Chaffin *et al.* (2009: 356) affirm that the strengthening of the aforementioned memories materialises in the linguistic memory, which involves verbal and internal thoughts about a performance. This method is critical to the working memory and mental rehearsals.

Furthermore, Chaffin (2007: 377) conducted a study in which the retrieval and memorisation procedures of a concert pianist were scrutinized as she learned Claude Debussy's *Clair de Lune*. Subsequent to the 4  $\frac{3}{4}$  hours it took to prepare the piece for performance, it was found that retrieval practice was a large benefactor in the memorisation of the work, and that the participant attempted to memorise the work from the onset. Although the pianist had never played this specific work prior to the research, she had heard it before and also played other works by Debussy. The results of the study by Chaffin (2007: 383) found that there were important stages in practising, which included the pianist sight reading the piece so as to gain an overall understanding of the framework. Following this, the pianist split the piece into sections and supplementary sub-sections, and then joined the various sections in an attempt to learn the entire work during the first three sessions. Throughout the next two sessions she worked on successfully playing the piece from memory numerous times. The final two sessions involved her practising the piece in the performance venue. The fourth and fifth stages were found to be the most time-consuming, as they involved memorisation of the work. Attention to the structure of the work was found to be important, and the pianist outlined numerous starting points and used the commencement of sections as memory recovery points. Performance and expressiveness were also identified and rehearsed extensively.

Chaffin (2007: 389) also found that memory was the primary subject when the pianist expressed her thoughts pertaining to the learning of the music. Chaffin declared that the participant was unaware that she would have to provide feedback, and that she was oblivious to the theories relating to expert memory. Her thoughts alluded to the three ideologies that inspire expert memory, namely: familiar patterns, retrieval organisation, and retrieval practice. This is evidence that memorisation is an integral part of performance and particularly important for improvisation. Groome (2004: 96-97) states that memory entails the accumulation and storage of information that an individual may use in the future, which can be divided into three stages: the input, storage, and output of memory. He further identifies short- and long-term memory as the two significant models in which data may be stored. The former refers to one's present and conscious memory, while the latter refers to the memory that is not being utilised at the present moment, but may be consulted should the need arise. Groome (2004: 114) further acknowledges the importance of retrieval cues and rehearsal and repetition in the maintenance of memory.

Performances are substantially reliant on cognitive and motor functioning, which endorse the reinforcement of memory. According to Chaffin *et al.* (2009: 354), the operation of multiple memories is key in the recollection of a musical work. Retraction in musical performances is reliant on the simultaneous functioning of six specific memories, namely, auditory, motor, visual, emotional, structural, and linguistic memories.

## **2.7 Modelling**

In terms of developing one's sound and repertoire, Berliner (1994: 88) maintains that it is vital that musicians listen to and analyse original recordings and compositions. This may aid the player in improving their own rendition, and in constructing an original interpretation. Through the imitation (modelling) of jazz masters, aspiring players are able to develop their expression and musical dialect. By memorising and transcribing solos from recordings, or scrutinizing transcriptions, musicians improve their improvisation. As a result thereof, one can build a vocabulary containing rich patterns, licks, riffs, and ideas. Berliner (1994: 127) also affirms that the development of one's own personal sound indicates a pristine level of musical maturity, and this is a result of modelling. Through the formation of a personal sound, musicians can express their own construal of various aspects of music in a fresh and

innovative manner, and develop personal sounds and articulations. Jazz musicians that have had this type of impact include Charlie Parker (bebop alto-saxophonist), Miles Davis (bebop and cool jazz trumpeter), Jimmy Dludlu (South African jazz guitarist), and Bheki Mseleku (late South African jazz pianist).

## 2.8 Conclusion

To verify the success of practice, it is important to evaluate one's practise sessions. It is vital for specific outcomes to be outlined beforehand to assess the results accurately. Furthermore, teachers are a great influence on the amount of time that their students dedicate to practising. Research conducted by Jørgensen (2002) in Norway conservatoires proved that instructors rarely emphasised the teaching of practising methods during their lessons. Therefore, as expressed by Jørgensen *et al.* (2009: 269), it is critical for educators to inform their pupils of the appropriate strategies, methods, and techniques associated with qualitative practising.

May (2003: 245) identified the significance of jazz education in music education in more recent years. Furthermore, May mentioned that Coker (1989) and Witmer and Robbins (1988) believe that jazz theory comprehension and aural capacity are integral to the acquisition of jazz improvisational skills. Research by McPherson (1993), cited by Thompson (2008: 199), revealed the relationship between improvisation and essential facets of music performance.

It is evident from the literature overview that the acquisition of skills in practising classical and jazz repertoire overlap significantly; however, the extent of the differences in approaches in the acquisition of jazz improvisational skills needs further investigation.

## Chapter 3

### Research Methodology

#### 3.1 Introduction

The research methodology and process will be explained in this chapter, along with the following: research design, selection of participants, data collection procedures and strategies, conducting of interviews, data analysis, ethical considerations, and validity and reliability in relation to the research.

#### 3.2 Research design

This study utilised a qualitative research paradigm in order to gain a deeper understanding into the concept of jazz improvisation. More specifically, the distinct methods, procedures, and techniques that six South African jazz musicians employ in the acquisition of jazz improvisational skills, were explored.

Leedy and Ormrod (2010: 108) and Nieuwenhuis (2011c: 75) confirm the appropriateness of a case study by explaining that one of its significant purposes is to gather knowledge on a misunderstood subject (acquisition of improvisation skills) through the thorough analysis of individual cases. Moreover, case studies allow the researcher to uncover the “how and why” and “cause and effect” (Cohen et al. 2010: 253) of the phenomenon being researched.

Following the conduction of the interviews, as emphasised by Creswell (2013: 193), the researcher then thoroughly examines the transcripts and identifies unique ideas and assembles common themes. The researcher then has to elaborate on both the “what” and “how” the participants experienced the matters being investigated.

Cohen *et al.* (2010: 253) underline that individual case studies enable a researcher to critically analyse a phenomenon that involves human participants on a deeper level. Case studies observe events and individuals relevant to a study in order to gain an in-depth understanding of the matter being researched, while ensuring that the researcher is fully



immersed in the situation. Case studies further allow the researcher to scrutinise real-life situations, concepts, and allow for further research to be contributed to existing phenomena.

The mode of research design employed in this study was a collective case study, as six participants were interviewed in order to explore their experiences and perceptions of improvisation. Furthermore, using this method enabled me as the researcher to investigate a topic that is of interest to musicians and educators alike, through the use of interviews. Utilising a case study allowed me to focus on the individual musicians' understanding and personal perceptions, based on their own experiences. Additionally, this research design also allowed me, as a jazz musician, to gain insight on a subject that is of great interest to me.

According to Leedy and Ormrod (2010: 137) case studies allow the researcher to use a number of participants in the hope of understanding their experiences relating to the topic at hand. Collective case studies, as stated by Ebersöhn, Eloff and Ferreira (2011: 130) and Nieuwenhuis (2011c: 75), also allow the researcher to study multiple cases in the hope of evaluating the results and drawing the necessary conclusions and gaining an overview of the concept being studied. Thomas (2011: 141) notes that the strength of collective studies does not lie in each individual case, but rather the associations and contrasts that can be made between them.

Case studies was the preferred design because, as indicated by Leedy and Ormrod (2010: 137), as it allows the researcher to use interviews as a method of gathering data on the subject being studied. Additionally, Nieuwenhuis (2001c: 75) states that case studies allow the researcher to put each individual case in context, so that the uniqueness of each can be appreciated in gaining a rounded view of the topic being investigated.

### **3.3 Selection of participants**

The selected sample group was comprised of six professional South African jazz musicians who have national and international performance experience in the jazz genre, and extensive studio experience. Pertaining to demographics, six African, and one Indian musician, with experience ranging from 10-40 years, were interviewed. The self-taught or institution-trained instrumentalists were interviewed, and what I discovered was that all the participants were

also highly adept in other instruments, aside from their primary instrument. It is worth mentioning that one of the interviewed participants is fully active in academia.

Stratified purposive sampling was employed as the sample group needed to meet specific criteria for their selection, which aided me in ensuring that the outlined research questions could be answered. Cohen, Manion and Morrison (2010: 110) and Nieuwenhuis (2011c: 79) state that purposive sampling allows the researcher to purposefully identify certain characteristics that the participants should possess beforehand in relation to the research question(s), and also the number of people to be studied. The attributes that each individual should possess must enable them to meet the level of professionalism and skill required for the research. For the objective of this research, the participants were required to meet the outlined communication requirements, have the necessary performance experience locally and internationally, and be South African citizens.

The selection criteria were that the participants also have extensive recording experience, along with a thorough international performance background. The sample group had to be fluent in English, and have access to a telephone and e-mail for communication purposes. Finally, all the musicians had to be South African citizens, due to the nature of the study. Each participant was required to take part in a face-to-face individual interview with me as the interviewer. None of the musicians had access to the interview questions prior to the interviews to ensure authenticity of the responses. The duration of each dialogue was approximately 30-45 minutes.

### **3.4 Data collection**

For the purpose of this study, semi-structured interviews were preferred mainly because they permitted me to outline the applicable questions in advance, and to probe any matters that arose during the interview process. Kvale (1996: 14) explains that in-depth semi-structured interviews provide an “inter-view”, as they permit different individuals to contribute their thoughts on a similar topic. Interviews are further said to encompass both verbal and non-verbal communication. Thomas (2011: 163) mentions that semi-structured interviews allow the researcher to note their interview questions beforehand, so that all the necessary issues

may be probed, while allowing flexibility in terms of the order of the questions and exploring any issues that may arise during the interviews.

The interviews took place in the following manner:

**Phase 1:** The participants were contacted and the full nature of the study was explained to them. The interview consisted of five background questions, and thirteen in-depth questions. Six semi-structured interviews were conducted at a time that suited the participants. All the interviews were recorded and transcribed.

The interview questions were constructed in such a way to determine the instruments the participants play, the participants' backgrounds, development, influences, personal methods, and beliefs about improvisation. This assisted me in understanding and analysing the unique journeys of the musicians involved, and in understanding how they reached their current levels of understanding. I was also able to discover and investigate essential procedures in the acquisition of improvisational skills. Scrutinizing the transcripts led to the development of the principal and sub-themes.

### **3.4.1 Semi-structured interview procedures**

The central objective of the study was to generate rich and personal descriptive data regarding each participant's experience of improvisation, and in doing so understanding the critical processes, and perhaps challenges, thereof. Qualitative interviews, as mentioned by Nieuwenhuis (2011c: 87-88), involve conversation between two people, therefore the interviewees had to have an understanding of the topic being dealt with, to ensure rich and descriptive answers to the questions delineated by the interviewer. Semi-structured interviews allowed me as the researcher to substantiate definite theories, and to organise the questions prior to the interview.

Participants were contacted by means of a telephone call explaining the nature of the study. The participants were called approximately a month or two prior to their interviews, in order to accommodate their schedules. Once the musicians agreed to the interviews, the semi-structured interviews took place at a location that was most convenient for them. The main regions were Durban, Pretoria, and Johannesburg, and each participant had to sign the

consent forms to confirm their understanding of the nature of the study, and to grant me permission to utilise their contributions to the study. The participants were also afforded the opportunity to review the interview transcripts and findings to ensure that they were heard and understood correctly. The following process was in accordance with the University of Pretoria's ethics code, and the participants were also permitted to withdraw at any stage.

### **3.4.2 Conducting the interviews**

Through signing the participant consent forms, the musicians assented to the recording of all the interviews. The questions were strategically structured in a way that would enable them to convey an account of their own experiences in their own words, and the same order of questions was followed for each interview, starting with background questions, followed by more in-depth questions. For two of the interviews, I asked unprepared questions, just to obtain a better understanding of valuable information given.

The interviews reconnoitred the various theories and assumptions concerning improvisation. It was surprising that although the skill of improvisation was one that each musician utilised on a daily basis, having to actually elaborate on their personal experiences and understandings did not prove to be an easy task, with some of the musicians at times highlighting that they found it challenging to provide a verbal description of the processes involved in improvisation. Another factor that stood out, was that although each participant had a primary instrument, they also had the ability to play other instruments, which perhaps added to their understanding of how to approach improvisation. A thorough analysis of the transcripts will be provided in the forthcoming chapters.

### **3.5 Data analysis and interpretation**

Leedy and Ormrod (2010: 152) and (Nieuwenhuis 2011a: 99) state that data analysis refers to the process in which researchers attempt to explain their findings, based on the data acquired from the participants. The process involves a meticulous examination of views expressed by participants, in order to explicate the phenomenon being researched and to recognise common themes. This stage of the research was fundamental, as it allowed me to predict the

reliability of the findings. The method of data analysis employed in this studied is referred to by Thomas (2011: 141) as “cross-case analysis” as individual cases are being studied in order for a comparison of the cases to be made.

### **3.5.1 Interview transcriptions**

The transcription and data analysis process was directed by Leedy and Ormrod (2010: 138), who confirm that a case study involves grouping the results in the necessary categories, while respecting the uniqueness of each case being studied. Common themes that emerge during the data analysis process are examined and categorised, so that deductions can be drawn on the concept being studied.

Transcribing the interviews proved to be an elaborate process. On average, each interview took approximately eight hours to transcribe. This was due to the fact that every single word, including repetitions and reactions (pauses, sighs, complaints), was noted, and because the interviews generally lasted between 30-45 minutes. Moreover, each response was played four times to ensure that I had not missed or misheard the participants’ answers.

Content analysis was employed in the analysis of the data. Stemler (2001) highlights that this method of analysis enables the researcher to assume that common themes or statements that emerge from one transcribed interview to the next highlight the relevance of that concept. Nieuwenhuis (2011a: 101) also mentions that identifying pivotal points in the transcriptions enables the researcher to analyse the data from multiple perspectives. Content analysis also allows the researcher to identify any information that is different or unique, as compared to commonalities.

### **3.5.2 Analysis of interviews**

Creswell (1998: 150) created a data analysis spiral that is pertinent to several qualitative designs. This model consists of four processes which enabled me to progress from the raw data to the final report. They are as follows:

- Organisation: Organising the data into smaller systematic units.

- **Perusal:** This stage involves surveying the collected data several times in order to gain a better understanding. This stage helps with identifying common themes.
- **Classification:** Grouping the identified themes from the perusal into the applicable categories.
- **Synthesis:** Creating an interpretation of your findings for the reader.

**Organisation:** The initial part of the analysis of the transcriptions involved conducting all the interviews, and analysing each question across all six transcripts.

**Perusal:** This was a crucial stage of the analysis process. I had to reconnect with each interview experience through reading and listening to each response numerous times, so that I could acquire a thorough understanding of each response and identify the fundamental aspects in each response. This required repetition to ensure the validity of my findings. The common themes then began to emerge.

**Classification:** The classification process allowed me to identify the subordinate and superordinate themes based on the information that I had derived from the perusal process. The themes that emerged revealed the views that prominent musicians considered to be important in the acquisition of improvisational skills.

Initially, I devised a table with three columns to indicate my analysis of each interview. The first row (coding) highlighted notable reactions or statements from the participants' responses. The middle column provided the full interview transcription. The final row reflected my analysis, and what I had identified as the prevalent themes. The main challenge throughout this process was the analysis of information, and identifying the responses that were legitimate themes. After triangulation, the final table consisted of four rows: 1) superordinate themes; 2) subordinate themes; 3) underlying themes; and 4) raw data, which included verbatim comments from the participants to validate the selected themes. The same procedures were followed for each interview.

Due to the study being a case study and idiographic in nature, each interview was analysed individually in order to respect the uniqueness of each distinct case, and to further maintain impartiality. According to Thomas (2011: 48), Maree and van der Westhuizen (2011: 33) and

Nieuwenhuis (2011b: 51), an idiographic approach involves a deep study of individual cases, so that the uniqueness of each can be appreciated.

**Synthesis:** Following the analysis of each individual transcript, a comparative enquiry followed in order to outline the unique and shared content across the interviews. Inductive analysis was used, as it allowed for the complete analysis of each interview and the identification of each musicians' thoughts and personal experiences of improvisation. Induction, as defined by Leedy and Ormrod (2010: 33), involves the researcher interpreting the results through observation, and without any predetermined outcomes. Furthermore, Thomas (2011: 17) and Maree and van der Westhuizen (2011: 37) state that inductive reasoning involves looking at a smaller sample (case studies of six musicians) in attempt to gain a greater understanding of the experiences of a greater whole (South African jazz musicians).

### 3.5.3 Themes

The classification stage was essential in the generation of the superordinate and subordinate themes. Superordinate themes can be seen as main themes. Discovering the main themes involved surveying the subordinate themes that emerged from the interviews, grouping them based on how they related to each other, and then identifying the main concept (superordinate theme) that the grouped themes were referring to, or could fall under. Due to the complex nature of identifying superordinate themes, triangulation was employed to confirm the identified themes. Thomas (2011: 68) states that triangulation is key when working with a case study research design. Furthermore, it is critical in ensuring the reliability of the data collected (Maree & van der Westhuizen 2011: 39). Triangulation, according to Leedy and Ormrod (2010: 99), Maree and van der Westhuizen (2011: 39), Cohen et al. (2010: 141), and Thomas (2011: 68), involves studying numerous collected data (six interviews) within qualitative research, with the hope of identifying commonalities within the results obtained from analysis human behaviour. Observing multiple perspectives also allows the research to avoid bias.

To aid the triangulation process, an individual analysis of each interview was conducted, followed by a cross-analysis of the collective interviews. My research leader and I (multiple

views) were able to validate whether my deductions were correct by following the same procedure, then comparing the findings. Cohen et al. (2010: 143) refer to this method as “investigator triangulation”, as two or more observers study the data collected individually, then compare their findings to ensure the validity of the results. The subordinate themes were then identified from the coding column, which contained notable extracts from the participants’ responses. Once coding was completed for all the interviews, the next stage involved the recognition of similarities and differences in the emerging themes. Across the six interviews, 17 subordinate themes were identified. In confirming the validity of the themes, each transcript was re-read, and quotes (raw data) were located to verify the recognized themes.

To ensure the accuracy and credibility of the results, all the interviews were labelled and placed in separate folders to avoid disorder during the analysis and interpretation process.

### **3.5.4 Construction of analysis chapter**

Following the confirmation and naming of the superordinate and subordinate themes, I was able to begin with the data analysis chapter. The analysis provided information about the number of participants involved, and a brief biography of their professional experiences. For the sake of anonymity, each participant was assigned an identification letter that was included on the interview transcripts.

Quotations that supported the selected main and sub-themes were provided, and an explanation of each theme was provided prior to the supporting quotes. The quotes provided confirmed similarities across the interviews, and added unique and contrasting responses.

### **3.6 Role of the researcher**

Subjectivity is inescapable in qualitative research as this method requires immersion in a genuine situation and to record findings during the process. According to Leedy & Ormrod (2010: 135) and Nieuwenhuis (2011c: 79), qualitative methods further require the researcher



to act as an instrument of measurement, through the analysis of patterns and themes that may emerge throughout the research process.

In terms of case studies, the researcher needs to be highly attentive during the interview process in order to note all important information, verbal and non-verbal. In order to remain as impartial as possible I tried to avoid speaking too much during the interview, allowing the participants to express themselves and their views openly.

### **3.7 Quality criteria**

#### **3.7.1 Trustworthiness (reliability)**

Trustworthiness is important in ensuring the credibility of the study (Nieuwenhuis 2011: 115). As is standard practice, the interviews were conducted, recorded, and transcribed to ensure trustworthiness during the data analysis process, and six people were interviewed, to help in identifying familiar concepts. To ensure trustworthiness, participants were allowed to review the transcripts of their interviews and the findings to ensure that they had not been misquoted in any manner. Generalisations needed to be avoided, and it was therefore crucial that the study be put into perspective. The confidentiality of participants was ensured to secure their identities.

Cohen *et al.* (2010: 148) noted that to ensure reliability, the researcher has to know their role, select participants cautiously, consider the environment, and also select appropriate data collection strategies. Denzin and Lincoln (1994) identify three methods to ensure the reliability of observations, namely: 1) stability; 2) parallelism; and 3) inter-rater reliability. Stability refers to the observations remaining the same regardless of variables such as the time or place where the data was collected. Parallelism allows the same results to be obtained even if the researcher may focus on other factors apart from the main phenomenon, while inter-rater reliability ensures that another researcher will also obtain the same results (triangulation).

### 3.7.2 Validity

#### **Credibility (internal validity)**

In order for the outcomes of the research to be considered valid, Nieuwenhuis (2011c: 80) and Leedy and Ormrod (2010: 99) note that they needed to be considered as reliable; consequently, the results needed to be consistent in the manner in which they were analysed, and unbiased. Internal validity required that the method of data collection, analysis, and interpretation, not be questionable. To ensure this, all the interviews were conducted in the participants' natural settings and among musicians that have notable professional experience, both in and out of South Africa. Participants were required to understand the nature of the research, but some aspects to be observed were not highlighted, in order to encourage genuine responses, thus ensuring a more legitimate result. Triangulation was also essential to credibility, as this aided me in identifying a multiplicity of views. Pertaining to this study, examining the various answers to the interview questions allowed me to identify common themes in the answers to ensure the reliability of the results.

#### **Generalisability (external validity)**

Leedy and Ormrod (2010: 99) and Cohen *et al.* (2010: 136) point out that external validity refers to the extent to which ones research applies to general real-life situations. To guarantee this, the sample group was an accurate reflection of the phenomenon being examined. Similar research was also analysed in order to verify the results obtained. To further ensure validity, Cohen *et al.* (2010: 144) suggest that factors such as time, resources, appropriate instrumentation, suitable questions, evading bias, and similar procedures be followed during the data collection process. Content validity was guaranteed, as mentioned by Cohen *et al.* (2010: 137), by ensuring that the interview questions covered the entire spectrum of the research, which I did to ensure that the results could be rendered valid.

### 3.8 Ethical considerations

Cavan (1977: 810) defines ethics as follows: “A matter of principal sensitivity to the rights of others ... while truth is good, respect for human dignity is better”.

Bak (2004: 28), Cohen *et al.* (2010:58) and Leedy and Ormrod (2010: 101) state that ethics statements are compulsory if a research study involves people, in order to ensure the safety and dignity of the participants. To avoid the participants suffering any psychological or physiological pain, there were certain ethical steps that needed to be taken into consideration. The ethics code of the University of Pretoria guided the research process. The participants were given a participant informed consent letter which provided them with a thorough description of the study, their rights throughout the research, and possible contributions of the study. They were then allowed to accept or decline the offer to participate in the research. Upon agreeing, the participants were given the option to withdraw at any stage. They were then required to sign a participant consent form to confirm their participation in the study.

As emphasised by Leedy and Ormrod (2010: 102) and Cohen *et al.* (2010: 72), the participants were not subjected to any physical or emotional injury, or any unnecessary anxiety, humiliation, or any life threatening situations. Each participant was assigned their own identification code that would be used throughout the write-up for the sake of anonymity, unless they permitted, in writing, for their real names to be used.

## Chapter 4

### Data analysis and results

#### 4.1 Introduction

The following chapter provides the results of an inductive analysis of data collected from the verbatim interview transcriptions. The main objective of the interviews was to gain a deeper understanding of the personal journeys, methods, techniques, influences, and unique beliefs of six expert South African musicians/improvisers, and in doing so, gain a better understanding of the manner in which improvisational skills are acquired, the processes involved therein, and what is unique to the South African context, if anything.

As emphasised in the previous chapter, subsequent to a meticulous analysis of each interview, 17 subordinate themes were detected in relation to three superordinate themes. This chapter will delve into each superordinate theme and its associated subordinate themes, and illuminate them through the use of direct quotations as a means to validate each super- and sub-ordinate theme, from the participants, which will be followed by a concluding synopsis.

The data analysis revealed three superordinate themes. The definitive themes are as follows:

1. Early and later influences
2. Motivation
3. Processes in acquiring improvisational skills

**Table 4.1: Summary of superordinate theme 1, subordinate themes, underlying themes, and raw data**

<b>Superordinate theme 1: Early and later influences</b>			
	<b>Subordinate themes</b>	<b>Underlying themes</b>	<b>Raw data</b>
1.	Self-taught vs. music education		<i>Uh, at the start, no, I didn't have any formal lessons, basically self-taught, and only much (much) later, I decided to go to university. (C)</i>
2.	Church	<ul style="list-style-type: none"> <li>• Secular versus sacred music</li> </ul>	<i>Well the (the) main source, or even where things started is church, where you (you) have to develop your ear by force. (C)</i>
3.	Family		<i>Okay (eh). I would have to say my father. (A)</i>
4.	Active listening and transcribing	<ul style="list-style-type: none"> <li>• Traditional and modern concepts</li> </ul>	<p><i>When a record was playing I would sing. (A)</i></p> <p><i>You must study improv the old-fashioned - the traditional way like Parker and Coltrane did, which is transcriptions. (D)</i></p>
5.	Performance background	<ul style="list-style-type: none"> <li>• Concerts, competitions and festivals</li> <li>• Travels and experiences</li> </ul>	<i>I've had the opportunity to perform vast sort of array of festivals around the world. (F)</i>
6.	Political and cultural influences		<p><i>Under apartheid times we were not allowed to play Western instruments. (D)</i></p> <p><i>So that...on its own is a huge, plays a huge part of my life in terms of exploring improvisation ... the fact that I am born Xhosa. (F)</i></p>

7.	Multiple instruments		<i>So I still play guitar and piano (eh) and sing ... but ya, my main instrument remains bass-electric bass. (F)</i>
8.	Role models	<ul style="list-style-type: none"> <li>• Working with older musicians</li> <li>• Advice</li> </ul>	<i>Working with older guys...they work more disciplined ... more freedom to just do whatever you wanna do. (E)</i>
9.	Listening preferences	<ul style="list-style-type: none"> <li>• All genres</li> </ul>	<i>I listen to everything. (B and A)</i>
10.	The significance of emotions	<ul style="list-style-type: none"> <li>• Emotional experience transfer</li> </ul>	<i>The biggest premise that I draw from when I improvise is emotion. (C)</i>

#### 4.2 Superordinate theme 1: Early and later influences

Following a thorough analysis of the transcripts, the first superordinate theme to emerge was that of early and later influences. This theme includes the details surrounding early learning, development, and acquisition of jazz playing, and improvisational skills. This particular theme is critical to understanding the developmental steps in the acquisition of improvisational skills and presented 10 subordinate themes with a few underlying themes: self-taught versus music education, the church, family, active listening and transcribing, performance background and experience, political and cultural influences, multiple instruments, role models, listening preferences, and the significance of emotions.

##### Subordinate theme 1: Self-taught versus music education

The first subordinate theme emerged as a result of the background questions. It was eminently clear that the musicians had their initial encounters with music on their own, as opposed to having teachers from the onset. The result showed that five of the six participants were self-taught.

I started playing I think about 17, 18 years ago, but as a child messing around, 30 years ago. (B)

At the start, no, I didn't have any formal lessons. (C)

Well, I started off as a self-taught musician. (E)

Only one participant first received formal lessons on the recorder while he was in primary school. However, pertaining to his current primary instrument, which he began playing at the age of 21, was self-taught and only received formal lessons five years later.

So I played recorder from the time I was in standard three ... I started teaching myself at the age of 21, and when I got a scholarship to study in the US, that's when I started taking my first official lessons. (D)

A trend from all six participants was that although they were all initially self-taught, they felt the need for a more structured approach, resulting in a formal education with a private teacher, college or university, for the most part.

The formal lessons must have started at 12 at the Funda centre. (A)

... Only in 2009 I enrolled at UKZN and started studying drums formally. (E)

[Formal] lessons only much later I decided to go to university. (C)

Essentially, the participants were self-taught and only pursued a formal education later in life.

## **Subordinate theme 2: Church**

Playing in church was a prevalent theme among a number of participants. A natural occurrence in black-African churches is that musicians are required to rely solely on aural abilities. For example, a singer will start a song in the key of their choice, and afterwards the musicians are expected to find the accurate key and provide accompaniment. Since the level

of musical proficiency is not as strict in this sort of environment, this is how the musicians hone their skills. The analysis revealed one subtheme: secular and sacred music.

### *Secular and sacred music*

The significant influence that church (sacred) music had on the participants' development became apparent during the analysis of the transcripts. The majority of the participants started playing in church, then went on to study jazz (secular music). The following statement by participant C notes the distinction between developing in the church environment and outside the church.

The main source , or even where things started, is church where you have to develop your ear by force ... getting to accompany a lot of people, and for me that is a school that compares to no other ... that still speaks to how I approach music today. Church shaped my initial musicianship, and then I became curious as to what was happening outside of church ... one of the best decisions I've ever made. Ya, and I think that opened and exposed me to a more technical approach to music as well, because the church part is more emotion and feeling, and interpreting what you feel at the time, but also putting into music your personal convictions, which is still consistent even in secular music ... who relate to the subject matter in a more technical kind of way. (C)

This statement implies that there are unique features to be gained from both church and secular music. The church music environment creates a space for the musicians to learn how to place a great focus on emotion in expression, as it is a spiritual experience between the worshipper and God, whereas secular music emphasises technique first, then expression. Essentially the combination of elements from both these environments may aid in distinguishing a novice and expert musician.

### **Subordinate theme 3: Family**

The musicians mentioned the significant influence family members had on their development. Fathers were the most influential family members, as mentioned by two participants.



I grew up in a family where my dad had a band ... They used to practise and rehearse in the house, so I grew up in that environment. (D)

When asked about key people that influenced his improvisation during his formative years participant A answered:

I would have to say my father. (A)

Participant A's father is a renowned South African jazz icon, and his father was a major influence on his instrument and career choice, and initial approach to improvisation.

#### **Subordinate theme 4: Active listening and transcribing**

Listening and singing to recordings was a prevalent theme across all the interviewees. This is pivotal in the training of the ear, transcribing, and being able to sing what you play (one's improvised solos). According to all the participants listening and singing is a mandatory step in gaining improvisational skills.

Listening to what other people are doing - it's greatly important. (B)

I listen to a lot of horn players and a lot of singers. (C)

When a record was playing, I would sing ... I would try and copy exactly the same thing. (A)

Listening to other musicians, whether live or from recordings, is seem to be inspiring and motivating.

Listening takes you to another place of hearing ... and opening up to other possibilities. (E)

I'll listen to his improv: what new does he bring? And without fail, these things get absorbed into my own playing. (D)

Active listening involves listening to learn or gain, which was a subject of utmost importance for all six participants.

The listening part of it: listening to a whole lot of recordings, a lot of live performances, and just how other people speak when they improvise. (C)

I always listen to music to learn something, so I will deliberately put on cd's or recordings in my car, of things that I wanna learn ... I will listen to the pieces, I will listen to the harmonies, I'll listen to his style, I'll listen to his improv; what new does he bring? And without fail, these things get absorbed into my own playing. So it's very structured listening. (D)

The data confirmed that active listening is critical to the development of improvisation and musicality, and it involves not just knowing the melody or harmonies, but understanding the approach being taken in the music. The participants find ways of incorporating what they have heard into their own playing, which further enhances growth. Participant E summed it up accurately in the following response:

I believe the biggest teacher is within just listening to guys play ... and I believe if you did more listening, we would have better players than those who are just learning out of the paper, because learning out of a paper is very good. I won't lie to you, that is very good, but listening takes you to another place of hearing things that you've never heard before and opening up to other possibilities which you can't get, 'cause you're getting emotion from them - instrumentalists, you're getting feel. You're getting his experience as a player. (E)

A critical issue raised by the entire sample group was the role that transcriptions play in the mastery of improvisation. The transcription process involves listening to other master musicians, imitating what they are doing in their solos, analysing them, and then applying their methods, whether it be tone, patterns or approach, with the hope of furthering one's playing and creating a unique improvisational context. Sometimes transcriptions are written out in full, for example the *Omnibook*, which includes transcriptions of Charlie Parker's revolutionary improvisations.

I used to play cassettes, tapes, and vinyl's, you know, and I would try and copy exactly the same thing. (A)

There's also the listening part of it: listening to a whole lot of recordings, a lot of live performances, and just how other people speak when they improvise ... you could try and imitate that for a while and playback what they do - but at the back of your mind you know that eventually you want to develop your own voice. (C)

Listen and learn from the masters, because you can't practise what you don't know. (B)

Our studies were more focused on jazz masters we studied: Max Roach, Elvin Jones, Art Blakey ... studying their solos to basically know how they phrase and to have a better understanding of the kind of sound. (E)

You must study improv the old fashioned - the traditional way - like Parker and Coltrane did, which is transcriptions. (D)

### *Traditional and modern concepts*

As the interview progressed, participant D mentioned the significance of not only studying the works of the old jazz masters, but exploring the works of modern musicians, and the new concepts that they apply in their approach to improvisation, as music is constantly evolving.

The thing that also influenced me a lot were the modern players like Eric Marienthal, the more modern guys, and to see their approach, because they were doing all these new things. Michael Brecker, Eric Marienthal, just doing amazing things, and I wanted to do that ... I had to do the modern stuff in addition to the traditional stuff. (D)

In developing the ear, it is important to listen to the recordings of other musicians across a wide spectrum of instruments. In essence, the participants' replies suggest that inadequate aural ability results in deficient improvisation.

### **Subordinate theme 5: Performance background and experience**

I tried to determine to what extent an extensive performance background is essential to the development of a jazz musician. The analysis revealed that all the musicians had thorough performance experience; not only in the jazz realm, but across a variety of other music styles. The analysis revealed two subthemes: concerts and festivals; and, travels and experiences.

### *Concerts and festivals*

I've played lot of concerts in my studying level and in my professional level, you know. They played a significant role in my musicality. (B)

I did play a whole lot of festivals across the US, around Europe ... and Asia. (D)

I've had the opportunity to perform vast sort of array of festivals around the world, as well as you know, locally. I mean I can name a few: La Paz, in La Paz in Bolivia, and you know I've done some stuff in Paris, in fact this year I was at the Paris jazz festival - that was amazing. Ria Loco, I've done some stuff in Tiluz...tours in India, I've performed in Qatar in the Middle-East. (F)

### *Travels and experiences*

All the participants have international and local experience, and as such, have been exposed to an assortment of music, musicians, playing styles, and approaches to improvisation. As jazz musicians from various continents approach jazz playing and improvisation from their own unique perspectives, having an opportunity to perform at an international festival such as the Paris jazz festival for example, which incorporates a variety of musicians from different parts of the world, affords the musicians exposure to diverse playing and improvisational styles. Therefore, as noted by Participant E, having the opportunity to perform at an assortment of festivals promotes the advancement of musicality.

Festivals taught me how to play much louder, to know how to have a punch ... having more presence and knowing how to play in a small setup when I'm playing jazz gigs. (E)

The analysis therefore suggests that listening to, and working with a broad spectrum of musicians in varied performance contexts, is indispensable in the maturity of musicality and improvisation at an expert level.

### **Subordinate theme 6: Political and cultural influences**

What I found surprising was the extent of influence the apartheid era (c. 1948-1994) had on all of the musicians. Participant D alluded to racial segregation, which was prominent during this time, and as black South Africans they were ostracized and not afforded the same

opportunities as white South Africans. As black musicians they were also not allowed to perform in the same venues as whites. The interviews revealed that this political era played a strong role in, amongst others, the type of instruments the musicians were allowed to play at school.

Under apartheid times we were not allowed to play Western instruments, so I played recorder from the time I was in standard three, grade four, grade five, until I finished my masters, 'cause we didn't have the UNISA grade seven exams, you know. We couldn't play. We were told we don't play. (D)

This participant provides an explanation as to why he only began playing his primary instrument in young adulthood.

South Africa is a nation rich in diverse cultures, each with their own unique music. Its sizeable cultural heritage may have an effect on how the participants approach music, improvisation, or rhythms.

That on its own plays a huge part of my life in terms of exploring improvisation, the fact that I am born Xhosa. (F)

Surprisingly, only one participant brought up the issue of culture. It is nevertheless essential to probe the manner in which the different cultures and their music have on South African music, and it is necessary to investigate whether this has an effect on the slant that the musicians take on improvisation as a result.

### **Subordinate theme 7: Multiple instruments**

Unexpectedly, the analysis revealed that each of the participants were able to play an assortment of instruments, aside from their primary instrument.

I've actually picked up different instruments, so one instrument I've always had is a guitar. (A)

I studied piano first, you know. (B)

My primary instrument is saxophone-jazz saxophone, but I also play jazz piano. (D)

I started with guitar, as in acoustic guitar in 1980 ... but then five years later I started bass guitar and bass guitar became my main instrument. So I still play guitar and piano and sing, but ya, my main instrument remains bass-electric bass. (C)

Participant D also mentioned that he plays recorder, in addition to the aforementioned instruments, and although not mentioned, Participant A has a grasp of various instruments. The six South African jazz musicians draw on their multiple instrument skills which informs their jazz performance and improvisation. However, this may not be endemic to South African musicians per se.

### **Subordinate theme 8: Role models**

The participants stressed the importance of having a role model in the music industry. This takes place in two forms: 1) role models that you listen to and learn from via recordings; and 2) working with experienced musicians, and learning from their mature approach to music and improvisation.

Working with older guys ... they work more disciplined ... more freedom to just do whatever you wanna do.” (E)

Essentially, this illustrates the integrative nature of improvisation, as it seems impossible to acquire the skill on one's own; listening to and working with more experienced improvisers is ostensibly an unavoidable and critical stage in acquiring improvisational skills.

### **Subordinate theme 9: Listening preferences**

When probing the specific genres of music that the participants listen to and how this might influence their improvisation, they all attested to listening to all genres of music, from traditional music, rock, and classical music, among other styles.

I try to consider myself a bass musician and not a specific genre musician. Why? Because improvisation lies within all genres, and so I listen to a vast array of music. I listen to jazz ... I listen to Indian music. I listen to European jazz. (F)

I listen to everything. Everything. Everything ... there is another type and styles of music that I actually like at the end of the day, because I believe that when you are a proper born musician, you don't close yourself in one umbrella. (B)

I listen to all music I can get a hold of - I think lately I listen to very little jazz. Ya, I mean from contemporary music, pop music, to traditional music from all over the world, because whenever I listen, I listen for all sorts of things: from arranging to composition; what makes a strong melody? So my taste is very broad and maybe without prejudice, even some I wouldn't call music, I still listen to ... Someday I might be working with some musicians and suddenly they play that kind of groove, so it maybe gives me familiar territory so to speak, so that nothing really shocks me. (C)

I listen to rock. I listen to gospel. I listen to pop. I listen to house. I listen to classic ... I like all the sounds and all the styles have a point of connection or an element of improvisation. (E)

I listen to everything. That's my answer: I listen to everything ... The beautiful thing about jazz is that it lends itself to other styles of music ... it's also able to borrow from other music's. (A)

These responses demonstrate that being a jazz musician does not necessarily mean that one should listen to jazz exclusively, as there is something to be learned from all genres, and all music styles contain elements of improvisation. Participant A highlighted that this factor was evident in the works of legendary saxophonist, John Coltrane, who added elements of world music to his compositions and personal style.

Like John Coltrane picking up things from West Africa and incorporating those things in his music ... borrowing from Indian music. (A)

### **Subordinate theme 10: The significance of emotions**

The final subordinate theme to emerge was that of the significance of emotions and the role that they play in the approach that the six South African jazz musicians take when constructing improvisations. The emotions expressed included day to day emotions and the emotions as a result of encounters, and their experiences, with people.

### *Emotional experience transfer*

The participants emphasised the importance of expressing one's emotions through the music or improvisation, and also felt strongly about this being audible to the audience.

Emotional experience transfer adds depth to the music. The participants feel that playing devoid of emotion is futile, and it is the responsibility of the musician to express the emotions being felt during jazz playing and improvisation.

The church part of it is more emotion and feeling, and interpreting what you feel at the time, but also putting into music your personal conviction ... The old lady who starts a song in church and as a child you listen to what they are doing, but you also listen to how they get carried by the emotion and they start leaving the key, and you notice these things. I think the biggest premise that I draw from when I improvise is emotion, because even if you know the notes, scales, and the harmonies, but how you're feeling at that time will determine how I play those notes. [sic] (C)

For me as a drummer it's all about playing what you feel - what is in your heart. (B)

Participant B and C highlight the importance of what they feel in their heart being transferred into the music which affects how they express themselves; as participant C explains, like a worship leader in church who is overwhelmed with emotion, and this results in an emotion-driven interpretation that is audible through the music.

My biggest influence - you know music used to be about changes: minor-seven-flat-five. How do I approach? ... All of a sudden music is no longer that for me ... I'll make an example: where do babies come from? Do they come from babies? Do babies come from babies? No, babies don't come from babies; chickens don't come from chickens; eggs don't come from eggs; beer doesn't come from beer ... music doesn't come from music ... So it comes from experiences. I've gone through my own personal things the past three years ... Love, hate. Betrayal ... laughter, joy, all of these things. Having a child...being married; all these emotions of being a human being ... All of a sudden these things are coming out in my music ... everything stems from these experiences. Even though there are no lyrics ... it comes out. If I'm sad today, you'll feel it you know, in the music, even if I'm playing a Beyoncé gig. (A)

Participant A's elaborate response explains the core of what he believes improvisation to be. Inferred from his response is that novice musicians draw primarily from technical aspects, whereas expert improvisers understand that music goes beyond that, and they use the solos as



a means to express their present emotional state. He further states that regardless of the setting, even referring to a pop or R ‘n B setup, whatever emotion he is feeling will be perceptible in his improvisations.

### 4.3 Superordinate theme 2: Motivation

The second superordinate theme to emerge was motivation. The focus of this theme was to assess the variables that have the greatest influence on how the participants view improvisation. Two subordinate themes emerged from the main theme: attitudes and values and environmental influences.

**Table 4.2: Summary of superordinate theme 2, subordinate themes, underlying themes, and raw data**

<b>Superordinate theme 2: Motivation</b>			
	<b>Subordinate themes</b>	<b>Underlying themes</b>	<b>Raw data</b>
1.	Attitudes and values	<ul style="list-style-type: none"> <li>• Improvisation is easy/natural</li> <li>• General vs. stylistic improvisation</li> <li>• Musical integrity</li> </ul>	<i>I think it's the most natural thing for a musician to do - that's how I see improvisation. (A)</i>
2.	Environmental influences	<ul style="list-style-type: none"> <li>• Socio-economics</li> </ul>	<i>The socio-economic (eh) dynamics of each country sort of contribute to how people approach (music). (F)</i>

#### Subordinate theme 1: Attitudes and values

This theme emerged from the finding that each musician has their own views and beliefs about improvisation, which are informed by underlying attitudes and values which influence their perception of improvisation. Some of the attitudes or views expressed were that improvisation is not difficult, and the importance of integrity when approaching

improvisation by not playing memorised versions. These views, although valid, may not be generalizable to all jazz musicians, but they exert a great influence on the participants' development.

### *Improvisation is easy/natural*

According to participant A improvisation is a natural ability all musicians have:

For me improvisation ... I don't think it's a complicated thing ... I think it's the most natural thing for a musician to do. That's how I see improvisation. (A)

This attitude toward improvisation may have contributed to his success. Perhaps it is the key to how he has mastered the skill. He does not see it as an extraordinary ability, but rather something that anyone can do.

### *General versus stylistic improvisation*

Naturally, I think we are improvisers. I think we are general improvisers. However, one needs to pay attention, perhaps to stylistic improvisation. I think that's when we need to acquire certain skills pertaining to improvisation - when it comes to stylistic improvisation. (F)

Participant F's view is similar to participant A in that he also believes that all musicians are natural improvisers, however, he quantifies by suggesting levels of skill, between general inherent ability and a more skilful stylistic improvisation. He states that we are all general improvisers, but the ability to improvise from a point of deep knowledge, is a skill that needs to be acquired through education and practise. The desire to bridge the gap between general and stylistic improvisation may be a motivator.

### *Musical integrity*

The issue of musical integrity was raised by only one participant, who described integrity as expressing original improvisations, in contrast to passing off the solos of expert improvisers as one's own, which novice improvisers sometimes do out of fear. It is interesting that memorised solos, as important as it is in development, paradoxically can affect integrity. Participant C felt strongly about playing with integrity and raised the issue of written or memorised solos.

I do want to touch on the whole idea of memorised solos - I know you didn't ask about it, but I think it's the biggest threat to improvisation, and it is a widely discussed subject at the moment among the jazz education circles, because you find young people who spend the time transcribing John Coltrane solos and they memorise it to the tee, and even the sound, you know. So when that person stands in front of you as an examiner and plays that solo, if you don't know or you're not familiar with the stuff, then you give them 100%, and that is not improvisation - that is just learning of melodies. (C)

This implies that in order for constructive learning, growth, and originality to occur the improviser should learn to value musical integrity.

## **Subordinate theme 2: Environmental influences**

It was found that the micro and macro environment plays a significant role in the musicians' approach to improvisation.

### *Socio-economics*

The socio-economic environment seemed to be a critical influence on musicians' motivation, which in turn affected the manner in which they approach improvisation. This is explicated in the following statement:

The socio-economic dynamics of each country sort of contribute to how people approach (music), you know, like when I was studying in Sweden, I didn't have to pay for school to start off with, so they don't charge you for school, but then they pay you for coming to school ... the medical system is free, so that everyone is healthy ... transport system is ridiculously cheap ... So that eliminates the things we are still struggling with, I mean, that's why they are fifty years ahead of us ... If you listen to European music, there's lots of space in the music, in the European jazz approach ... they're very particular about their touch - they're very soft, and to me that's primarily contributed by the fact that they don't have to worry about so much. As compared to me who still needs to worry about transport and bills - a different kind of world, you know, and then my frustrations and all those kinds of things, sort of come out in the music. So I'm a big believer that the socio-economic dimensions of each country contribute to how people approach music. (F)

Participant F is arguing that the socio-economic factors that we encounter on a daily basis as South Africans, whether motivating or demotivating, is translated into our music, which

would in turn affect the approach that we take on improvisation. Therefore, the socio-economic factors translate into a unique approach to improvisation which then results in a unique sound.

#### 4.4 Superordinate theme 3: Processes in acquiring improvisational skills

The focal point of the third superordinate theme was the processes involved in the acquisition of improvisational skills. These included looking at fundamental progressions in the attainment of these skills, and unavoidable obstacles. The analysis revealed five subordinate themes: 1) organic versus structured; 2) practice strategies; 3) learning and preparation; 4) factors affecting practice; and 5) developing identities.

**Table 4.3: Summary of superordinate theme 3, subordinate themes, underlying themes, and raw data**

<b>Superordinate theme 3: Processes in acquiring improvisational skills</b>			
	<b>Subordinate themes</b>	<b>Underlying themes</b>	<b>Raw data</b>
1.	Organic versus structured	<ul style="list-style-type: none"> <li>• Formal vs. informal practice</li> <li>• Knowledge of jazz rudiments and technique</li> <li>• Developing a unique sound</li> <li>• Jazz metaphors</li> <li>• Role models</li> <li>• Authentic self-expression</li> <li>• The value of mistakes</li> <li>• Aural to cognitive</li> </ul>	<p><i>Good technique means you should know scales, you should know the arpeggios, you should know the modes, all the technical stuff that's involved with improv, but you should also have good vocabulary. (D)</i></p> <p><i>It's like making love to what you do. (B)</i></p>

2.	Practice strategies:	<ul style="list-style-type: none"> <li>• No system</li> <li>• Warming up</li> <li>• Play-alongs</li> <li>• Isolating weaknesses</li> <li>• Memorisation</li> <li>• Solo vs. ensemble</li> <li>• Practice versus play</li> </ul>	<p><i>I think for me practising now has to do with more hearing. (A)</i></p> <p><i>Warm up is crucial every time. (E)</i></p> <p><i>You're only as strong as your weaknesses. (D).</i></p>
3.	Learning and preparation	<ul style="list-style-type: none"> <li>• Listening</li> <li>• Copying</li> <li>• Repetition</li> <li>• Analysing</li> <li>• Creating</li> </ul>	<p><i>I will try to transcribe Charlie Parker...analyse it... Practising over and over and over and over again. (D)</i></p> <p><i>Copy what they do, and then try to recreate your own things. (A)</i></p>
4.	Factors affecting practice:	<ul style="list-style-type: none"> <li>• Time</li> <li>• Quality over quantity</li> <li>• Socio-economics situations</li> <li>• Physiological awareness</li> <li>• Gigs</li> <li>• Environment</li> <li>• Routines</li> </ul>	<p><i>When I started work, it became more of a challenge ... I try to get in two hours in a day. (D)</i></p> <p><i>I make sure that firstly I understand my body. (F)</i></p> <p><i>I don't know when I'm gonna start practising, or even where you know, unless you call me for a gig, then I'll attend a gig. (A)</i></p>
5.	Developing identities:	<ul style="list-style-type: none"> <li>• Imitation</li> <li>• No teacher</li> <li>• Personal sound</li> </ul>	<p><i>Try to do as much as you can on your own, because if you don't do that, you somehow lose who you are. (A)</i></p>

### Subordinate theme 1: Organic versus structured

The data for the first subordinate theme revealed several factors that differentiated between organic versus structured learning in the acquisition of improvisational skills. Organic learning refers to informal learning, and structured learning denotes a formal approach. In making this comparison, the following underlying themes were explored: 1) formal versus informal learning; 2) knowledge of jazz rudiments and technique; 3) developing a unique

sound; 4) jazz metaphors; 5) role models; 6) authentic self-expression; 7) the value of mistakes; and, 8) aural to cognitive understanding.

### *Formal versus informal practice*

As mentioned under the first superordinate theme, the majority of the participants acknowledged that they were initially self-taught, which implies an organic learning process, or perhaps a struggle for resources. They later felt the need to gain a more structured formal training. There were some critical comments made regarding the issue of formal versus informal learning and its influence on improvisation. Participant A suggests that although formal training is beneficial, it could stifle originality and suppress or prevent the development of an authentic voice.

When you play music for the first time, try not to find a teacher. Try to have the instrument ... and pull by yourself. Do not seek. Try not to seek out from a teacher or from a big brother or a big sister, or from anybody else. Try to do as much as you can on your own, because if you don't do that, you somehow lose who you are ... You lose who you are because of a teacher who's now giving you his ideas that they really have, and I think your first experience of music or your first experience of playing an instrument should be yours; it should be your own, you know. (A)

Musicians who may not have had the church or the gospel music background relate to the subject matter in a more technical kind of way. So you think of chords and scales more than you think about how this sound makes me feel. (C)

Participant A emphasises the importance of exploring and developing an original voice or style, untarnished by the constraints of formal training, suggesting that it is more important to develop authenticity before technical mastery. He also questions the formal process, saying that formal training stifles originality due to its rigidity. Participant C reinforces the importance of the informal learning environment of church and gospel music by presupposing that a formal education leads one to approach music or improvisation from a technical angle, which can be musically inhibiting and detracts from the full potential of the musician.

### *Knowledge of jazz rudiments and technique*

Unanimous among the participants and essential to the acquisition of improvisation skills is knowledge of jazz rudiments and technique. According to the participants jazz playing and

improvising technique are developed through technical work such as scales, arpeggios, chord structures, harmony, and theory. Rudiments refer to the basic and complex patterns that drummers devise and practise to aid them in jazz improvisational and playing skills.

At the beginning, you've got to work on the technique, as I think the one thing that prevents many of us from improvising the way we'd like, is lack of technique, and sometimes amongst jazz musicians there's this notion that technique is for Western Classical, or Western Art music and not for us, but it's amazing when you've got technique underhand, how much you can really execute what you're hearing in your head or what you're feeling in your heart. (C)

It's all about practicing where we started from you know. The roots of everything; the rudiments that everybody is running away from you know, even the scales - the scales of drumming are the rudiments. (B)

I just know it would be building up your technique, because a lot of times we have many ideas in our heads, but technique is the only wall that can block us from not being able to execute what we're thinking about. (E)

Technique is purely technical scales; scales and modes, patterns, licks, you know, etudes ... so I constantly work on my technique. (D)

The substance of practicing techniques or the basics of jazz was found to be inexorable among the majority of the participants' responses. It was unanimous amongst all the participants that technique plays a major role in the development of a jazz musician and improviser.

As a jazz musician my practice technique consists primarily of nailing the basics ... and then I take all my jazz scales, and then I bring them into my practice routine ... scales play a major role. The superimposition of scales plays an even better role in the sense that there's that very coherent sort of diatonic approach and then you can superimpose that stuff elsewhere to create a new sound to you know, in your improvisation. I think that for me is how I approach it. At first I say, 'look, I need to know what the harmony is; I need to know the scales in relation to the harmony', and then I try to break away. (F)

I guess metronome is the biggest one, I always practise with a metronome. I do my rudiments, flap taps, paradiddles ... triplets, I work out all my subdivisions, syncopation stuff- on practice pad and on snare-and I round the whole kit. So it doesn't make sense knowing how to play a paradiddle without knowing how to orchestrate it around the kit, so I just work out all the techniques every time... Technical stuff allows me to express myself in every groove, so it simplifies work, so everything I can think of, I can play ... If you groom technique, it opens you up to a lot. (E)

The participants emphasise the importance of knowing the basics or roots of jazz, and incorporating them into practice sessions. They highlight that although some may try to avoid this step, it is fundamental in building sound and aiding execution of improvisations. Furthermore, Participant E was the only one to mention the use of a metronome as part of building technique, mentioning that it aided him with rhythmic subdivisions.

Technical is purely technical scales; scales and modes, patterns, licks ... working on etudes... so I constantly work on my technique ... In terms of my technical ability I'm trying to learn the more modern concepts like multiphonics and overtones, and altissimo register ... Good technique means you should know scales, you should know the arpeggios, all the technical stuff that's involved with improv. (D)

In addition to the traditional technique, participant D underscored the importance of incorporating modern playing techniques, such as the exploitation of multiphonics, overtones, and altissimo register in saxophone playing. This consideration is important, because as much as there are traditional techniques, instruments have developed, and new techniques have developed along with them.

Time would be spent going through more technical things: sight-reading and also transcribing ... you've got to work on technique, as I think the one thing that prevents us from improvising the way we'd like is lack of technique ... but it's amazing when you've got technique underhand, how much you can really execute ... hearing harmonies is crucial. Some people have a technical approach to this, others rely largely on their developed ear; some successfully achieve a good balance of both. Knowing the relationship between harmonies and scales/modes ... Having one's technical ability under-hand is important. Hearing something in your head and not having the technique to execute it is many musicians' enemy. So we keep practising to achieve this. (C)

Participant C's response echoes those of the other participants. However, he also brings to light the importance of sight-reading for jazz musicians. This is a crucial factor as some jazz musicians often connect the ability to read music fluently with being classically trained. Additionally, he adds that bad technique leads to the inability to execute ideas as desired, which is why technique is an aspect that should constantly receive attention.



From the derived responses, it is evident that the participants considered the following foundations to be the techniques/basics of jazz improvisation: scales, arpeggios, harmony, the relationship between scales and harmony, superimposition, knowledge of the body of the instruments, rhythmic sub-divisions, patterns, licks, etudes, metronome usage, transcribing, sight-reading, and aural to cognitive understanding.

All the participants mentioned that without an adequate technique, you will be limited as an improviser, and a lack of technical ability will inhibit the execution of potentially well-conceived ideas.

### *Developing a unique sound*

As previously mentioned, the environment that the participants found themselves in largely influenced their sound. The next matter that the participants shared opinions on was the importance of developing one's own unique sound as a jazz musician.

The participants are suggesting that although there are numerous formulas that can be utilised in the construction of a solo, such as rudiments and transcriptions, the objective is not to regurgitate all of that, but rather to use one's knowledge to develop one's own sound. The inimitability of American trumpeter Miles Davis' sound served as a point of reference for the majority of the participants.

One of the great legends of such is Miles Davis actually. He had lots of minimalisticness [sic] in his approach, but how he placed it, particularly in his song Juan Pierre ... it's a simple melody, but he takes the same melody and then he just shifts the shape up into different places while the tonality stays in one place. (F)

I think Miles Davis stands out for me, largely because of how simple he was, but the simplicity still had depth with it, and also with him, the ability to take a composition and own it and play it as if you're the one who composed it, and if people don't like the fact that it doesn't sound like the original, tough! (C)

The fact that Miles Davis was mentioned by the majority of the participants is a testimony to the importance of uniqueness and developing one's own sound in jazz playing. The musicians constantly used his jazz playing as a reference, due to his unmatched sound.

### *Jazz metaphors*

There were also numerous jazz metaphors that surfaced in emphasising organic learning, as the participants strove to explain their understanding of improvisation and the processes involved therein.

This music becomes the most democratic music. It becomes Nelson Mandela music ... what I mean is that it's democratic music, because it can borrow itself to all the styles, and I think it has done that in the past. (A)

Like if you had to ask me, 'how do you speak every day? What are the processes?' ... there is a premise of language that you come from, even as we speak now ... we speak English and there are certain rules: past tense, future tense ... so one has to draw from that. (C)

We're adding texture really; colour, to build up the theme and actually present a painting. It's more like we're all carrying brushes, like paint brushes, and we're all painting at the same time, but supporting each other and making one picture with one vision, unlike having your own platform where you're just painting by yourself. (E)

In improvising, you're taking a person from one point to another point, so that person must follow the journey that you're taking. It's like a navigator, what (is the) good of having a navigator that doesn't know where to go? ... It's like making love to what you do - you're putting somebody from somewhere and we become all happy at the end of the day ... Improvisation is a language. You're talking, you know. You're telling a story. So when you tell your story, you need people to understand and follow you - what you're saying. So if you just keep murmuring and you don't tell your story properly, people will be lost ... it's a conversation ... you have to listen so that you must be heard as well. (B)

Participant E likened the conceptualisation of improvisation in a group setting to painters working on the same artwork. Both participant C and B equated improvisation to language, stating that both should be approached in the same manner. Participant B went on to compare improvisers to navigators, as there is a journey the listener needs to be taken on, and he also associates the improvisation process with the intimacy of love-making.

### *Role models*

The significance of having musical role models came to light during the interviews. Drawing from other musicians, whether from recordings, live performances or transcriptions, was found to be crucial in the process of acquisition. Yet again, purposive listening was stressed, as the participants drew from musicians, both masters and their peers that inspired them. The participants were able to draw insight from musicians that enthused them, or musicians that

had similar stories to their own. This includes both traditional and modern musicians, and the musicians that they work with in their immediate environment.

People like George Duke, they are (the) kind of people that one is likely influenced (by) in a way ... Afrika (Mkhize) ... linking to Billy Cobhan - I mean as a drummer, he was a pianist as well ... even Lenny White you know, he's a drummer and also, he studied piano as well. (B)

So I listen to a lot of horn players and a lot of singers, 'cause for me, melody is king or queen. So ya, I think that's what drives my influence in terms of improvisation ... If you are in a setting where there's other musicians that you're playing (with), obviously you listen to what they are doing and you draw from that, whether it's rhythmically ... you might want to play with what they are doing or play against what they are doing, which brings in a different colour altogether. (C)

With an ensemble, you are feeding off others. (A)

Bruce Baker, Kendrick Scott, Chris Dave, would be Max Roach - that was my first biggest influence. I checked out a lot of his phrases; he gave me understanding of what jazz is. Elvin Jones brought me into a world of discipline as a drummer in a band, so he was also another big influence. Chris Coleman: precision, he has a lot of precision, articulation, and power as a drummer. Art Blakey: strength, sound, texture ... Gerald Clayton: as a pianist he thinks beyond notes, he thinks sound, he thinks rhythmically, like a drummer. (E)

Role models are viewed as important since aspiring jazz musicians need a point of reference when learning, and to also judge their playing from. Listening to one's musical role models promotes development and acts as a source of motivation.

### *Authentic self-expression*

An indispensable and distinctive process in improvisation mentioned by the participants is authentic self-expression. Self-expression involves using one's playing or improvisations as an extension of one's self, as opposed to just playing notes and neglecting the meaning of the music. The participants felt that authentic self-expression results in the finest music. One participant mentioned that even with the greatest technique, if one is unable to fully express oneself, the true potential of jazz playing is lost.

I think that's probably the most beautiful music in the world, when people are allowed to express themselves, you know. That's how I see improvisation. (A)

With me, improvisation as a drummer, it's all about playing what you feel - what is in your heart - at the end of the day, you know, because ... other people, they take improvisation as a technicality you know; they put technique. It's fine, but what is (the) good of putting technique and messing things up in the improvisation that you are doing? (B)

The participants implied that although technique is vital, that on its own it is not sufficient. An expression of self, the inner-self, is an integral component of improvisation.

### *The value of mistakes*

A number of participants mentioned the value of making mistakes in acquiring improvisational skills.

Sometimes the only time you get to practise is on stage when you're actually improvising and then you make the mistakes on stage, and you realise and learn from those mistakes that you make on stage. (F)

My advice would be ... make all those mistakes. I will respect someone that has failed more, that a person that's failed twice ... a person that's been failing forever - I would trust that person. (A)

I guess then the other thing is to just jump in and not having the fear of messing up, and I guess that's another thing that holds us back, because the idea of being able to recover when you've played a wrong note is an important part of improvisation, in fact, it almost makes you flirt with how far you can stretch the harmonies. (C)

These reactions allude to the notion that mistakes are part of the learning process, and knowing how to recover from them is a skill in itself, and is essential for reaching a level of security in improvisation. Having a negative attitude towards mistakes may affect one's progress, and in turn, results in negative outcomes.

## **Subordinate theme 2: Practice strategies**

The second subordinate theme looked at practice strategies that the participants used in acquiring improvisational skills. The following underlying themes emerged: no system;

warming up; technique; play-alongs; isolating weaknesses; memorisation; solo versus ensemble; and, practice versus play.

### *No system*

Not surprisingly many of the participants have no specific system for practicing of improvisation. All the participants responded with a sigh or expression of exasperation when asked about their practice strategies.

Yoh! Ay, this is a difficult one, because to be honest there is no formula, you know ... Improvisation is different from you as a pianist and another pianist ... It's like there's no formula for living - there's no book for what life is about. (B)

When asked about the most effective method of practising improvisation, participant A's initial response was:

I don't know. (A)

This suggests that although the participants may improvise on a daily basis and their approach involves actively working on rudiments and technique, they rarely think systematically or about the steps when practising improvisation, unlike classical musicians who followed a more structured approach.

### *Warming up*

Although the participants were not asked about it, warming up, the next underlying theme, was mentioned by one participant.

For me, warming up is crucial every time. I warm up with sticks, shake hands off, stretch them out, and that's for every time I do that - every time I practise. (E)

Although participant E was the only one to mention this, it is noteworthy because warming up is an element that is deemed to be necessary among musicians. Perhaps being the youngest participant in terms of age and experience could provide a rationale for him feeling the need

to warm up prior to every practice session. The fact that this was not mentioned by any other participant could either mean that they do not warm up or they do not think about it systematically. Additionally, the participants may not have mentioned the value of warming due to the absence of a question on this subject.

### *Play-alongs*

The use of play-alongs during practice sessions is perceived as beneficial. Play-alongs are backing tracks generally played by a rhythm section (piano, bass, and drums) that provide harmonic and rhythmic backing to a composition, with an omission of the melody, which is typically played by the user.

What I will do is practise “Confirmation” with a play-along. So I will go and pull the Charlie Parker play-along or the Hal Leonard play-along of “Confirmation”, and I will practise ... and I will constantly play it with the play-alongs. (D)

Participant D indicated the value of utilising play-alongs during practice sessions, perhaps as a result of the play-along accompaniment providing a simulated performance environment.

### *Isolating weaknesses*

The participant’s stressed the importance of being able to identify weaknesses in one’s playing, and working to alleviate them during practice sessions.

So over the years what I’ve learned is to try and focus on areas where I still struggle, and practice on that, and in fact what I do is develop an exercise out of that which I am struggling with. So for an example if I notice that whenever I change from the first string to the third string with specific fingers, I always trip on that, so I develop s small motive exercise and just do it over and over. Even when I’m sitting, watching TV, I sit with the instrument and just keep doing that ... it’s amazing that after a period of time you’re surprised at how many things you’ve actually taken care of, and suddenly playing becomes a little easier, and I guess the whole idea of practising is exactly that, to eliminate problem areas. (C)

I’ve adapted over the years in terms of what I perceive my weaknesses to be. (D)

Participant C and D are implying that focusing and working on weaknesses is more beneficial than solely focussing on strengths, as this essentially increases the number of strengths in one’s playing. Furthermore, the participants’ responses demonstrate that, regardless of the level of a musician, there are always elements that can be improved.

### *Memorisation*

A factor that was suggested as integral to development as an improviser and jazz musician was memorisation. When queried on the importance of memorisation in jazz playing, and whether they felt it had an impact on improvisation, the participants had the following to say:

I think memory is good in any aspect of any human being's life. Like the idea of having memory is helpful ... For jazz, for me personally it's very important, because sometimes you are in a gig where you are playing a chart-something that you're not familiar with - and then you play it the first time and somebody plays the melody and you play the changes underneath. The second time around somebody is gonna start taking a solo, maybe it's going to be you. So it always helps to sort of memorise the changes as you are playing as much as you can, so that when you start soloing you're not reading the changes anymore. I think the people who actually remember the changes will be better improvisers than those who are actually sight-reading them. (A)

It is because you have to be familiar with the subject matter, so to speak, and then you can improvise on it ... It's the same as talking; if we're talking football to rugby players they will be limited in commenting on it 'cause they don't know much about it. (C)

I think it's very important for jazz. I guess in the setup of playing on stage you wanna have the freedom to explore without thinking of what are the changes again. (E)

Participant A, C and E observe the importance of short-term memory in a performance environment, suggesting that being familiar with the harmonic content of a piece will enhance improvisational content. Participant A adds that even though one may be playing a piece for the first time, they should try and memorise the changes, so that when it is time for the solo, they can be free to explore.

Critical. If you're going to read the changes, you're not gonna improvise at your peak. You have to know the changes; you have to have the melody memorised. If you're gonna play a piece, you must have it memorised. You must memorise the chords, the changes, all the technical stuff, and the melody, and you should know it well enough that you can play it by yourself in your practice room, without the rhythm section, and you should keep the form ... when you get up on stage there's all these factors that come into play, and these factors range from nervousness ... to other things like there's just a big audience, and there's more nervousness that works its way in. So all these external factors that come into play and now if you're still trying to read the music, it's just not gonna work. (D)

Definitely. I mean you gotta memorise and know what you're playing, because of some of the things that when you play when you improvise is some of the things that you practiced, and already when you start improvising, you start now you know. [sic] (B)

Participant D's response is in accordance with the responses of the other participants. Additionally, he adds that it is not only important to memorise the harmonies, but elements such as the melody, technical aspects, and form too. He also mentions that a piece should be memorised thoroughly as there are a lot of external factors that have an impact on performers, so memory assists in alleviating anxiety. Both participant D and B stress the significance of optimising practice sessions in developing memory.

I think memorising is key. Memorising grows your basket of intuition. You are able to free yourself if you know exactly what is going on in the music at any given point in time ... then you have the luxury of staying within the confines of the form as well as taking it out, because you've memorised it. (F)

Participant F adds that memorisation allows improvisers to improvise at their best, and to use their intuition in exploring the music. The participants' responses made reference to certain strategic components, which included memorising making one a better improviser, the importance of memorising the harmonic changes and the melody, and remembering material learned during personal practice. Furthermore, memorisation was said to aid freedom during improvisation and avoiding hindrances such as performance anxiety.

### *Solo versus ensemble*

A practice strategy mentioned by the participants is the importance of playing as a soloist, and ensemble playing (social interaction) with other musicians. They surveyed the variances in approaches when improvising as a soloist or as part of an ensemble.

As a soloist you get an opportunity to open the "chop shop" ... then as a band ... we feed off each other. If you're a soloist and there's a g minor in front of you, you think about the natural things like the Dorian, the Aeolian sometimes ... harmonic minor or the pentatonics ... The mind-set needs to change a lot because as a soloist, then it's all about things that you can do, often limited to your instrument. (F)

Soloist is more based on building up a theme on your own ... without being interrupted. (E)

As a soloist you have a little more freedom ... I think if I had to do a solo performance ... I have to sound interesting ... With an ensemble ... there's less work that I have to do. So it's a different approach in terms of preparation and also when you're improvising. (D)



The participants mention that when improvising as a soloist, essentially it is all about the individual having the freedom to explore their own thoughts and ideas, based on a theme of their selection.

When I play alone I know I need to think about rhythm; I need to think about harmony and melody ... you are also freer to take things wherever you wanna go. Whereas when you're playing with an ensemble you really have to be sensitive, highly sensitive, to what other guys are playing, and know that at that moment it's not just about you. (C)

Participant C remarks that although there is more freedom when one improvises as a soloist, there are other considerations that need to be factored into playing, such as rhythm and harmony, due to the absence of an ensemble.

When you improvise as a soloist ... you've got a big space of doing anything, there's nothing that confines you to any space ... unlike when you're playing with other people. Now you have to play within the context ... sharing one goal in terms of carrying the message. (B)

When you're in an ensemble ... you have to constantly be aware of everything that's happening around you ... So you have to play with the ensemble, figure out where the gaps are. You also have to work closely with the rhythm section in the ensemble ... you contribute to the ensemble, so it's more of a collective integration. (D)

For me playing in an ensemble or in a band is a little bit more easier [sic]. If I had to buy a record of solo piano ... that piano player would have to be very interesting to keep the audience ... So the difference is that if you play a solo you really need to address the entire spectrum of the piano, all the 88 notes ... but if you are in an ensemble, a lot of the ranges are already taken care of by other instrumentalists ... With an ensemble you are feeding off other musicians ... you don't know what's gonna happen in an improvised situation. (A)

Participants B, D and A note that when playing as part of an ensemble it is no longer about an individual theme, but rather an integration and transference of ideas. Evidently there are notable differences in tactics between preparing for the two setups, and it seems to be a prerequisite for musicians to have the ability to work under both conditions. However, the majority of the participants appeared to favour improvising in an ensemble setting.

*Practice versus play*

An issue that was brought up was that of practice versus play, i.e. knowing when to practice and when to play. Practice refers to focused, purposive and structured practice with the aim of enhancing ability, whereas play implies concentrating on one's current knowledge with the aim of enjoyment, as opposed to development. Ideally, effective practicing involves knowing the difference between practice and play.

Another mistake that most people make is that they tend to jam a lot in their practice sessions. Do not jam in your practice session - make a time to jam. (F)

For me it wasn't practise, it was just playing. (A)

I also separate my practice times. I've got to have time where I have fun and do stupid things ... but it's amazing what compositions come out of that, and then another time would be spent maybe going through more technical things. (C)

Fundamentally, learning should involve both work and play, but knowing when to do which is key.

### **Subordinate theme 3: Learning and preparation**

The third subordinate theme under processes in acquiring improvisational skills was found to be learning and preparation. As extracted from the responses of the participants, learning and preparation were found to involve a five-fold process, namely: 1) listening; 2) copying; 3) repetition; 4) analysing; and 5) creating.

#### *Listening*

Listening was revealed as a key factor in the learning and preparation process of acquiring improvisational skills.

Listening to what other people are doing - it's great important ... Listen and learn from the masters because of you can't practise what you don't know [sic]. (B)

The warmth of Richard Bona's sound - how big it fills the room, and then I've looked at the soloing methods of John Pattituci, who uses six string bass, so he can go up to like a C4 ... If

you look at Marcus Miller, he uses lots of slap, with lots of mid-top range, so those are the things that have contributed to what my bass sounds like, you know. (F)

The ability to listen: without this, attempting to improvise (especially with others) is a pointless exercise. (C)

The ability to listen to and draw from others was found to be crucial, with participant C emphasising that attempting to improvise without adhering to this listening step would be futile. Participant F's response also underlines the importance of knowing why you are listening to a particular record or individual.

### *Copying*

Copying or imitating other musicians with the intention of learning or developing one's improvisational skill seemed to be fundamental.

When a record was playing I would sing ... and then when I get on the piano and play records, I would learn. I think you have to start with the pieces that you like the most, copy what they do, and then try to recreate your own things. (A)

I had to learn the transcriptions with the recording, play it in public as accurately as I could. (D)

Participant A mentioned how he would listen to and copy records that he enjoyed listening to, while understanding that the aim was to eventually create his own sound. Participant D also mentioned having to replicate the transcriptions of jazz masters and performing them in public as a fundamental phase in his development.

### *Repetition*

In referring to how they acquired improvisational skills, participants A and C both accentuated the importance of repetition.

The more you do something, you do it so much that you know it well, that you don't actually need to actually do it physically. So you do it more from you ear - mentally. (A)

In fact what I do is ... just do it over and over. (C)

This step is applicable to all of the five steps mentioned, therefore listening to a composition or improvisation one intends to copy repeatedly, or constantly analysing works and creating one's own solos. Participant A further states that repetition builds the ear and enhances the ability to employ mental rehearsals.

### *Analysing*

The ability to analyse what you hear is imperative for any jazz musician.

As you grow you start realising and analysing what other people are doing ... Listen to what the song says, where the song comes from and where the song is going, and where do you fit within the space of the song, in terms of improvisation. (B)

Listening to other improvisers with an ear that is analytical and wants to understand what they are doing. (C)

Participant B notes that although it is important to listen to what other people are doing, it is irrelevant if one is unable to analyse or realise what they are doing, and finding one's own space as an improviser within that context. Participant C reinforces this by suggesting that listening should be achieved with the aim of enhancing understanding.

What I do when I get a piece for the first time, I will analyse it briefly, and my approach is to be more melodic as opposed to being harmonic, so I don't analyse a piece bar by bar ... I look for big key centres. I know like the first eight measures it's generally in a certain key, and it modulates for  $x$  number of measures to another key. That's my approach, to kind of think in that key and be much more melodic ... So I'll do some kind of analysis when I'm practising or beforehand, and then when I improvise I sort of have a set of key centres that I'm working towards, but if it's more of a challenging piece, if it is a piece like "Giant Steps" in which there aren't many key centres and it's flying by so quick, you have to go back to digital patterns. (D)

In the above quote, participant D explains the manner in which he analyses a piece before attempting to play it, mentioning that he employs a melodic approach by identifying tonal centres within the piece. However, he mentions the use of digital patterns for more complex pieces, which could be avoided by not only approaching the piece from a melodic perspective, but also from a harmonic one.

### *Creating*

The final process in learning and preparation is the ability of the participants to synthesize their own improvisations. Participant A and F highlight the importance of being able to add to what already exists and creating your own sound, with participant F suggesting a more technical approach in attempting to contribute to what has already been created.

I always hear something else on top of what is already there ... I will change a little bit of melody, or the drum part, or whatever, or the bass line. (A)

I'm always interested in coming up with something new, so when it comes to creating sound, new sound, I will consider the harmonies a lot ... I approach it at first to say "look, I need to know what the harmony is. I need to know the scales in relation to the harmony, and then I try to break away ... It's impossible to do something that hasn't been done before ... except there's still an opportunity to contribute to that. (F)

The importance and collaborative nature of this five-fold process was exhibited in the responses of participant D, F and C.

Charlie Parker and Cannonball ... they make lines, they create melodies and they create lines, and that's kind of what I will try to do right now ... I can tell you what works for me and it's a very simple approach ... I'll learn all of the harmony and scales ... transcribe somebody else's solo ... practise with a play-along ... borrow all of these licks from these transcribed solos ... I could spend a couple of months practising over and over and over again ... over time these tend to evolve, and you start to apply your own patterns and your own licks. (D)

The ability to ... touch your instrument every day, to learn from the things you listen to, to transcribe and be able to bring that into your own playing material, repertoire, basket of intuition. (F)

You listen so that you can learn in order to create your own, and it's not a crime for a while in your career to be copying what other people are doing and experimenting with it, but as long as you know that eventually the idea is to be able to create my own things. (C)

#### **Subordinate theme 4: Factors affecting practice**

Although as previously outlined, processes, influences and motivations may have a positive effect on the acquisition of improvisational skills, there are undeniable components that may affect practice time negatively, and in turn the accumulation of these skills. The sample group outlined several factors which included: time, quality over quantity, socio-economics situations, physiological awareness, gigs, environment, moods, and routines.

##### *Time*

The data revealed that the most salient factor that affects the amount of time the musicians practise was the availability of time. The general trend among the participants was that they practised more as students, and less during their professional careers. Participant D and E were the only ones to mention that they try to practise on a daily basis.

It's inconsistent. There are weeks that go by without any practice at all. I practised more when I was studying and even just when I finished studying - those early years. (C)

It's changed tremendously. I think when I was a student I was practising at least four hours a day, and then playing an additional two to three hours ... so I used to play maybe six hours a day ... I try to get in two hours a day, but it's not always possible. (D)

Okay. Every night I do practise patch so it's about an hour to an hour and a half. On the kit, I would have two hours. Two hours would be two days to three days a week. I can't have a day without rehearsal. (E)

Participant F explains that he practised more as a student due to the pressure of feeling the need to bridge the gap between himself and other students, which he was able to do.

Unfortunately, he mentions that currently, due to lack of time, he occasionally uses the stage as a place to practise.

I used to practise a lot and the pressure for that was I never had formal training before, and I'm now at university but don't know how to play ... so I was trying to bypass the stage very fast, you know, because I was a music lover who needed to turn into a musician. But I needed to get to artist stage where I can, you know, independently acquire jazz improvisation skills. So I used to practise for hours - anything between four hours and eight hours a day, obviously broken up ... So broken up into an hour or two at a time, take a break, come back, but consistency in my instrument ... Sometimes the only time that you get to practise is on stage when you're actually improvising ... So it has changed from eight hours to four hours, to ten minutes sometimes. (F)

Participant A brought an important issue to light. He mentions that his practice time has become less as compared to his earlier days, but he attributes this to the fact that he is more comfortable with his proficiency on his instrument. However, this implies that the more comfortable you become, the less practising you need to do.

It changes every day. I just came back from Switzerland last week, and I haven't touched the piano since I've been back ... I haven't been practising much. It's not a good thing, but I haven't been practising much. I think the difference is I'm actually comfortable. You know when you sit on the instrument (when you sit down to practise your instrument) ... when you play the piano you sit on it; they can take your eyes out, but you can still play. You no longer need your eyes to see the instrument, you know. So what has changed is that I'm very comfortable with the instrument." (A)

Participant B rationalises his reduced practice time by indicating that the focus should be on the quality of practice, rather than the quantity thereof.

Sometimes it just takes thirty minutes, but do you practise important things? Because you can spend fourteen hours a day but not even knowing and understanding what is it that you're practising ... Well, as always, when you're a student you've got many time to yourself [sic] - you've got lot of time to yourself ... But as you grow up ... instead of practising six hours, now you start practising four hours or three hours, you know. (B)

### *Quality over quantity*

The next issue was that of quality over quantity, which probably emerged as a reflex to practice times. The participants highlighted the importance of purposive or focused practice as more beneficial than drawn-out, yet unproductive, practice sessions.

It all depends on the significance of what it is that you're doing, so that you must understand what you are doing, because of it you're going to put many hours in doing something but at the end of the day you don't even understand it, what is the use of spending more of time? Unlike spending small (less) time, but understanding what you're doing. [sic] (B)

Some days it's down to an hour, but if I do an hour, then it's very focused ... With practising ... consistency will bring you success, not quantity ... I would rather have thirty minutes a day, every day, without skipping a day, for the next six months ... I heard a fantastic interview by Wynton Marsalis many many years ago, fifteen or twenty years ago that I still stick to, and his advice was this: So let's say you have two hours to practice in a day, right? You spend the first twenty minutes working on your sound, then you spend the next hour working on technique, then you spend twenty minutes working on transcriptions, and you spend twenty minutes working, or thirty minutes working on improv. That's your two hours. If you only have one hour in your day to practice, you divide everything that you do by four (two). (D)

This suggests that the quality of practice is more important than the amount of time that one practises.

### *Socio-economic situations*

Following an analysis of the transcripts, the socio-economic situation was found to be a large contributing factor to a decrease in the amount of time the musicians were able to practise, with a number of them stating that they had to provide for their families.

It has decreased a bit (practice time) because of the travelling and other work that I do on the side. (E)

Now with the tours that go on and the little shows we do, sometimes you don't get time at all, you know. (F)

When I started work, it became more of a challenge ... Now with work it becomes even more of a challenge because I feel I've got so many things to do, practising ... becomes sacrificed. (D)



Growth as well limits your time of practising, because there's work responsibilities, there's life responsibilities, there's homely responsibilities, you know what I mean. Grandmothers don't wanna work and you have to take care of her as well now you know, so it really affects and infects one's practice times, I think. (B)

Although participant C had a similar response to the other participants', his response suggests that he knows there is no valid excuse for not putting in the required practice time.

It's not that easy when you're also now taking care of the business side of your career. I'm running a company, but ya, it's also not an excuse. So maybe this interview was meant to kick my ass and get back to practising. (C)

He states that having business obligations, although unavoidable, should not be seen as a valid excuse for reduced practice times.

### *Physiological awareness*

Participant F brought to light that one must be aware of physiological limitations such as knowing and understanding your body, its abilities and limitations.

I make sure that firstly I understand my body; I understand my hands, I understand my arms, my forearms, my biceps ... my breathing technique ... I make sure I understand that so when I'm sitting down with the scales ... I'm working on them based on my body's abilities. I know how long my body can sustain, or I do not want to over-work my body ... but then you know like when you're a body builder they always say when it hurts, that's when it works most. With music it's not like that. If it hurts more, then you probably should stop, because then that's when you start damaging yourself. (F)

He suggests that in ensuring productive practice sessions, it is important for musicians to know and understand their bodies, and to structure their practice times according to this. Therefore it is essential to structure practice according to what one's body can handle at any given time, so as to avoid possible injuries.

## *Gigs*

Interestingly, gigs seem to contribute positively to practice times by inspiring participants to ensure that they find the time to practice. Both participant A and D's responses implied that they will definitely find the time to practice if they are booked for a gig.

I don't know when I'm gonna start practising, or even where you know, unless you call me for a gig, then I'll attend a gig. (A)

If I know that I have concerts coming up, if I've got big gigs coming up, then it's a minimum two hours ... It would probably be sometimes two-and-a-half, maybe three hours, but a minimum of two hours. (D)

However, participant C remarked on the negative effect that learning material for gigs may have on practice sessions.

I must be honest, lately most of my practice times are taken up by learning material for performances, which I do have to change somehow, but I mean even in that process of learning new things you're still growing in a sense, and particularly as a session musician you are always learning new material - some of it challenging - some of it not so challenging. So it's up to you how you even approach that. (C)

The final line of his response implies that although you may be practising gig material, perhaps the manner in which you do so may be altered so that you are also working on fostering other aspects of your playing.

## *Environment*

Although only mentioned by participant A, it is important to consider the practice environment and whether it is conducive to productive practice.

I live in a place, when you play music, people can hear you ... and for me to practise, it means I have to go to ... In fact, I've actually picked up different instruments, so one instrument I've always had is a guitar, so it's easy for me to move with. For me practicing is not necessarily about practicing the piano, it's more about expressing what I hear, so it doesn't matter whether ... So I spend more time playing the guitar actually and then I see the piano when I'm at the gig. That's my experience, which is a sad experience, for now. (A)

Participant A recounts what he refers to as a sad experience, the actuality that he cannot practise his primary instrument in his own home, as it may disturb his neighbours. Consequently he has to use a different instrument to rehearse all the material he would normally practise on the piano. However, he justifies this by stating that although he may practise on a different instrument, his ability to hear, and being able to express that, is beneficial, and thus he is able to transfer learned material to his primary instrument.

Participant A and C hinted that sometimes practice duration is affected by their moods or general feeling towards practicing.

Maybe as time goes on we do so too much and lose the fire of enjoying it – practise. (C)

I don't feel like playing a piano. I don't know when I'm gonna start practising or even where, you know. (A)

While participant C implies that pleasure gained from practising is sometimes lost due to excessive practise, participant A expresses that his mood or feelings affect his attitude towards practicing.

### *Routines*

Finally, the establishment of practice routines was found to be constructive to practise.

My goal was to practise two hours a day, so I tried to maintain two hours ... I try to get in two hours a day, but it's not always possible. Some days it's down to an hour, but if I do an hour, then it's very focused ... it's about being consistent in your practicing, so having a set practice routine that you adhere to every day. If it's one hour, then it's one hour every day, and I would go one step further to say if it's one hour a day, let it be one hour in the morning at the same time, because you get into that routine ... You will see the success. (D)

I can't have a day without rehearsal. (E)

Although practice times vary, consistency is seen as key element is ensuring prosperous practise.

## Subordinate theme 5: Developing identities

The final subordinate theme related to the processes involved in acquiring improvisation skills, and possibly one of the most decisive factors, was developing a personal identity. The following underlying themes emerged: imitation and not having a teacher in developing one's personal sound.

### *Imitation*

Although all six participants encouraged listening to, learning from, and imitating other musicians, the verdict was that one should always aim to develop their own unique personal sound.

Imitate that for a while and playback what they do, but at the back of your mind you know eventually you want to develop your own voice. The idea is not to be stuck and sound like someone else ... The uniqueness of jazz is exactly that we strive to be unique. (C)

Learning from others; what they're doing ... and what can you contribute in what they've been doing? (B)

When someone says to me, 'just do it your way' that's most natural, and I think that's probably the most beautiful music in the world, when people are allowed to express themselves, you know. That's how I see improvisation. (A)

Participant A alludes to music that is an expression of who you are as a musician, as being the most pleasing.

### *No teacher*

As the interview progressed, participant A repeatedly emphasised the value that not having a teacher during one's formative years may have on one's playing.

When you play music for the first time, try not to find a teacher. Try to have the instrument ... and pull by yourself. Try to do as much as you can on your own, because if you don't do that, you somehow lose who you are ... You lose who you are because of a teacher who's now giving you his ideas that they already have, and I think your first experience of music or your first experience of playing an instrument should be yours. It should be your own ... I don't think anyone should try teach someone improvisation if they have never tried to do it on their own for a substantial amount of time, because at the end of the day you want to have your own voice ... It will be easier for me to teach someone that already has an idea of what they

want; what kind of sound are they looking for? What is their concept of sound? Where are they going? Then once you have that you can seek a teacher to teach you how to get to where you wanna get to ... If you have not picked up an instrument yet and you are thinking of picking up an instrument, please do not get a teacher for at least, I don't know, for a year, or maybe two years. (A)

Participant A's views on this matter were elaborate and understandably so, as he raised some critical questions. Although teachers are beneficial, you need to have an understanding and awareness of your musical identity - your personal voice, because the assumption is that a teacher can stunt the development of an authentic musical sound.

#### **4.5 Conclusion**

The analysis of the diverse interviews revealed that the process of improvisation is a highly cognitive and complex personal process, which provides a rationale as to why the musicians interviewed for this study did not find the questions simple to answer. The analysis of the collective cases studied resulted in three superordinate themes: early and later influences, motivation, and processes in acquiring improvisational skills. A further 17 subordinate themes were identified and examined in addition to several underlying themes which were elaborated on. The following chapter will discuss the analysis provided in this chapter in relation to the literature review in the second chapter.

## **Chapter 5**

### **Discussion**

#### **5.1 Introduction**

Improvisation, more specifically jazz improvisation, is a widely deliberated, yet frequently misunderstood phenomenon. This study was undertaken with the intention of achieving an awareness of the manner in which expert jazz musicians in South Africa improvise and how they acquired their improvisational skills, through the exploration of their formative influences and methodologies. Furthermore, the study aimed to learn more about South African jazz musicians' unique context in which they honed their skills.

While current research focuses on facets such as the definition of improvisation, key factors therein, and improvisational models, there has not been research that focuses on expert South African jazz musicians. The following chapter will provide a discussion of the transcribed data collected from the semi-structured interviews and literature pertaining to jazz improvisation. The findings will be discussed with reference to the three delineated superordinate themes: 1) early and later influences; 2) motivation; and 3) processes in acquiring improvisational skills.

#### **5.2 Superordinate theme 1: Early and later influences**

In an attempt to understand the manner in which South African jazz musicians acquired jazz improvisational skills, early and later influences was the first superordinate theme to emerge. Self-taught versus music education, church, family, singing, performance background, political and cultural influences, multiple instruments, active listening and transcribing, role models, listening preferences, and the significance of emotions, emerged as subordinate themes.

Informal learning at the formative stage was one of the first important themes to emerge. Five of the six participants' initial encounter with music was informal. For example, one participant had recorder lessons in primary school, but taught himself how to play his main

instrument, which is the saxophone. Once the participants realised that they wanted to pursue a professional career in music after several years of self-directed learning, they all pursued formal studies at various institutions. These institutions include Funda centre, the University of KwaZulu-Natal, and international institutions such as the Universities of North Texas and Iowa, among others. The participants in this study reflect a variety of formal qualifications: one participant completed a doctorate in music, others completed bachelor degrees in music, one is a masters student and others, although highly accomplished jazz musicians in South Africa, did not complete their formal studies. This opposes Vitale's (2011: 1) view that musicians, not specifically jazz musicians, with a formal education are more respected than those without a formal qualification. This may imply that South African jazz musicians are not solely respected because of their qualifications, but for their level of improvisational skills and execution of the jazz style. Participant F was the only one to bring to light that although he was initially self-taught then completed his formal studies, he feels that he himself was largely responsible for his musical growth, rather than the teachers at the institution he attended.

In analysing the attitudes of formally educated versus self-taught music professionals, Vitale (2011: 5) found that self-taught musicians were viewed as more likely to have accomplished careers, than purely formally trained musicians. Pertaining to creativity (Vitale 2011: 6), self-taught musicians were found to possess more spontaneity in their approach to music, as opposed to learned musicians, who were found to habitually imitate other musicians. Self-taught musicians were seen to have more desire to succeed, due to the need to bridge the gap between themselves and formally trained musicians.

While all the participants appreciate both methods of learning, finding an authentic 'voice' as an improviser seems to be an important factor in the acquisition of jazz skills. This point is illustrated by participant A who has a particularly compelling stance about learning on your own as opposed to having a teacher:

When you play music for the first time, try not to find a teacher. Try to have the instrument ... and pull by yourself. Do not seek. Try not to seek out from a teacher or from a big brother or a big sister, or from anybody else. Try to do as much as you can on your own, because if you don't do that, you somehow lose who you are ... You lose who you are because of a teacher who's now giving you his ideas that they really have, and I think your first experience of

music or your first experience of playing an instrument should be yours; it should be your own, you know. (A)

In essence, he is not disputing the importance of having a teacher in promoting development, but rather stresses that it is important, as an improviser, to have a teacher at the appropriate time. Granting that the value of a good teacher is undisputable, aspirant jazz musicians should first have a personal, uninterrupted experience with music, so that they start creating their own musical identity, as opposed to expressing another individual's ideas.

All the participants in this study have experienced both informal and formal learning, and they are influenced by a combination of both. This finding resonates with those of Mak (n.d.) and Vitale (2011), who write that a participant's ability to combine the benefits of formal and informal learning is a large contributor to their improvisational skill. It can therefore be said that an important factor in the acquisition of improvisational skills for South African jazz musicians, is that the musician should find their own authentic 'voice', which includes a successful integration of firstly informal, then formal learning.

Although this is not discussed in any relevant literature, the church was found to be a critical influencing factor in the early development of some of the participants. The crux of this issue is that playing in church forces the musicians to develop their 'ear'. In the black-African church setting, musicians improvise an accompaniment for the singers without a score. The participants noted that growing up in the church and experiencing music in this setting added significantly to their growth. The African church setting in particular presents opportunities for growth, because, in contrast to a professional musical setting where a certain level of proficiency is required, the church is less demanding. Everyone is given an opportunity to play, even the weakest of players, because they are seen to be serving God, rather than focusing on a display of skill. One participant explains that even without any formal education, he was allowed to play in the church:

I started off as a self-taught musician. I taught myself kit, started playing in church. (E)

His response underlines four benefits of the church as a learning environment: 1) the church was the main foundation of his early development; 2) playing in this environment helped to



develop his ear; 3) he had the opportunity to ‘work’ with numerous people; and 4) the church environment was educational for him.

The participants viewed purely focussing on secular music (jazz) as not solely sufficient in the acquisition of jazz improvisational skills. One participant noted that he began playing in the church, but felt the urge to know what was happening outside the church. He states that outside the church he was exposed to a more technical approach of playing, as opposed to the method taken in the church, which is more focused on depicting emotions and feelings through the music. This needs to be interpreted with caution, as some may perceive it as a suggestion that secular music is devoid of emotion or feeling. However, it is important to note that his response is a result of his personal experiences. The participants suggests that both sacred and secular music allow one to put their personal convictions into the way they approach the music, but the methods taken are different. From playing in church they learned how to create an awareness for feelings, emotions, and the mood of the singers they accompanied, as the music in the church usually expresses feelings from an individual to God; from secular music they understood the technical aspects of music. This results in the theory that being an expert jazz musician requires a blending of the emotional side of sacred music with the more technical aspect of secular music.

Two of the participants’ fathers are musicians, and they both mentioned that this had a great influence on their pursuing music at a professional level. One participant’s father played with an Indian band that would rehearse at their home, and he was exposed to this from a young age. Similarly, the second participant, whose father is an accomplished South African jazz pianist, observed his father as one of his greatest influences during his formative years. Their exposure to such a high calibre of musicians from a tender age can be seen as an important contributing factor to their development. Fathers were found to have a great influence on participants’ development.

Although the specific influence of musician-parents on children in the same career is yet to be explored, there are significant studies that examine the impact that parents have on the development of their offspring’s career(s). Flouri and Buchanan (2004) found that children who have a good relationship with their fathers are more motivated to achieve. Kerka (2000) further states that parent-child experiences and interactions have a significant effect on the careers that children choose, which can be seen in the experiences of the participants whose

parents were musicians. Young, Friesen, and Dillabough (1991: 187) substantiate the value of receiving inspiration from a parent in validating a child's career choice, also mentioning that parental influence affects the process and outcome thereof (ibid: 188). Heggen (n.d.: 6) raises an important issue by suggesting that although the impact of an encouraging parent is irrefutable, it is important for one to develop their own identity.

Aside from biological fathers, one participant highlighted the significance of having father-figures to learn from. Participant E notes that it is important for any aspiring jazz improviser or player to have role models in the form of an engagement with expert musicians, and also from the recordings of master musicians in order to absorb that information. As the youngest participant, he noted that he admired working with older musicians as they have learned to create a disciplined working environment, and allow him the opportunity to explore the music as he perceives it. There were no studies found that corroborate the influence of family in developing jazz skills, there is therefore abundant room for further progress in determining the role that parents who are expert musicians play in the development of their children's musical development or competence.

The entire sample group found listening to be mandatory in the initial acquisition of improvisational skills, and moreover, listening to a broad spectrum of instruments, not just their primary instrument. All the participants endorsed listening as an integral part of their development. This finding resonates with Lehmann *et al.* (2001: 63, 139) who state that an important initial or formative stage for any jazz musician involves habitual listening to the recordings of jazz masters, with the intention to learn from them. Listening to recordings as a form of practice is considered to promote growth among players. Berliner (1994: 88) validates this view by stating that critically listening to and analysing recordings allows the jazz musician to improve their own interpretations when approaching improvisation. Participant A stressed the importance of not only listening, but also singing to recordings.

Berliner (1994: 88) highlighted the importance of being actively involved with compositions and transcribing the efforts of jazz masters in the acquisition of jazz skills, noting that this aids in grasping expression and building and extending one's vocabulary. Furthermore, through transcribing the improvisations of other musicians, improvisers can isolate patterns, licks, riffs, and other ideas to enhance their soloing. This is consistent with the responses of

all the participants, as they were unanimous in their views on the importance of transcribing in the acquisition of improvisational skills.

Participant C notes the benefit of listening to recordings or live performances to procure an awareness of how other musicians have grasped the concept of improvisation, with participant D emphasising the importance of deliberate listening. This encompasses listening for harmonic content, style, improvisation, and identifying whether there are new elements that appear during the improvisation. He referred to this as “structured listening”. Participant E states that listening to other musicians is the biggest teacher for any aspiring jazz improviser or musician. He underlines that although learning from written-out material or a book is beneficial, it is inadequate, as the music on the paper is not audible. Listening to a record, on the other hand, allows one to perceive the emotions, interpretation, feel, and experience of the player. Supporting this, participant A and C also noted the importance of active listening and transcribing, but mentioned that although musicians may initially imitate what they hear on records, it is important to understand that listening and transcribing should be done with the purpose of understanding how the masters conceptualised their improvisations, so that an original approach can be derived.

Participant D remarks that transcription is a method that has been utilised for decades, even by the greatest jazz masters such as Charlie Parker and John Coltrane, and it has proven to be a successful method. He underscores the significance of not just listening to the recordings of the older musicians, but as a jazz musician, also being aware of what modern musicians are doing and the new concepts that they are contributing to the realm of improvisation. A jazz musician expecting to improvise without listening is similar to an individual attempting to write without having read any literature.

All the participants have extensive experience in local and international festivals, not only in the jazz style, but across a variety of genres. Festivals such as the *Cape Town International Jazz Festival* and *Standard Bank Joy of Jazz* locally, and the *Newport Jazz Festival* and *Paris Jazz Festival* internationally, were found to advance musical awareness through exposure to different musicians, playing styles, stage presence, ensemble setups, and various improvisational styles. This finding confirms that international performance experience, an awareness of the approaches taken to improvisation in different parts of the world, and

working with a host of musicians is a decisive factor in determining an expert South African jazz musician.

An unanticipated finding was the influence of the political climate on the musicians' exposure, performance, and instrument choice. One participant mentioned that as a result of the apartheid era (ca. 1948 - 1994), aside from black musicians not being able to perform in certain venues or with white musicians, they were also limited on the instruments that they could learn at school. One participant initially played the recorder in primary school, as black students were not allowed to play "Western" instruments. This provides a rationale as to why he only began playing the saxophone at the age of 21, as aspiring black musicians were told they were simply not permitted to play certain instruments, and South Africa was only just becoming a democratic state.

Considering the diverse cultural backgrounds of the sample group, it was surprising that only one participant mentioned the effect of culture on improvisation, stating that his Xhosa culture and heritage are determining factors in his approach to improvisation. With South Africa being such a culturally rich and diversified country, with different musical characteristics identifying each cultural group, the issue of culture and its role in the manner in which South African jazz musicians approach jazz, and therefore improvisation, is one that requires further exploration.

Having a familiarity with and listening to various genres is an issue that the participants were unequivocal about. All the participants felt that it is not enough to be seen as a jazz musician, but it is better to be seen as a musician, with one participant affirming that one cannot be considered a "proper musician" if limited to only playing a single style of music. Another participant highlighted that elements of improvisation can be found and explored in various genres of music, for example, Indian music, therefore aspiring improvisers need to expose themselves to an assortment of music. Interestingly, one participant mentioned that he actually listens to a small amount of jazz, but rather listens to a variety of world music. He draws attention to certain features that improvisers should pay attention to when listening to music, namely: arranging, composition and melody. When responding to the question of what music he listens to, one participant's response embodied why it is imperative for jazz musicians to be familiar with different genres of music. He indicates that there is something

to be learned from each style of music, and jazz contains elements that can be incorporated into other music genres, for example, advanced harmonies or rhythmic approach.

Expressing emotions was found to be a central contributing factor to the approach that the six South African jazz musicians take when improvising. The participants expressed that being an expert improviser involves daily emotions and personal experiences being felt through the improvisations and the interpretation of the music. One participant mentions that he first understood the importance of emotions from his experience when playing in church, sharing that he was touched by the singers who would be carried away by their emotions when worshipping due to a personal conviction. Notably, he mentioned that the prime source that he extracts from when improvising, is emotion, stating that it is cardinal that one comprehends factors such as the notes and scales, but emotions will affect the expression of those notes.

These views were confirmed by another participant who revealed that improvisation is all about playing what you feel in your heart, and using the notes as a means to articulate that. Significantly, one participant stated that as a novice musician, his approach to music was based on the technical aspects such as harmonic changes, but as he matured into an expert musician, his approach was reformed completely. He declared that “music does not come from music”, as much as “eggs are not produced by eggs”. In his experience, jazz playing should be influenced by personal experiences which should be audible in the music, regardless of the type of music being played. He explains this by stating that all the conflicting emotions that he has experienced in the past three years, love, hate, betrayal, and joy, are a definitive component of his improvisations. This view is in line with May’s (2003: 45) study which sought to identify the variables that affected achievement in jazz improvisation, with expression being found as a crucial factor. Lehmann *et al.* (2007: 68) also mentioned that once a player is familiar with the technical aspects of jazz, they are then able to invoke the emotional atmosphere of a piece. This confirms the validity of the participant’s views regarding a transition from focusing on technical aspects when improvising, to relying on personal expression.

### 5.3 Superordinate theme 2: Motivation

The second superordinate theme to emerge was motivation, with attitudes, values and environmental influences as subordinate themes. Hallam (2009: 285) states that there needs to be a relationship between one's intrinsic motivation and their environment. Motivation in music is said to comprise certain variables which include individuality, social approval, cognition, self-determination, and goal setting. There are prominent aspects that affect the attitudes and values of the participants, and the general approach that they take when improvising.

One participant expressed the personal belief that improvisation is easy and is the most natural thing for any musician to do. This belief is not simple to comprehend, as improvisation is an activity that is often feared and misunderstood, even by the most seasoned musicians. However, considering the participant's mastery of improvisation, his personal attitude towards improvisation can be seen as a large motivating factor. This is verified by Kelly (1995) and Rotter (1966) (in Hallam 2009: 288) who state that cognition is required in motivation, supporting the participant's opinion that thoughts do have an effect on his abilities, as he perceives no limitations in improvisation. The fact that he views improvisation as easy and natural may add to his enjoyment of it, as affirmed by Good and Brophy (1991) (in Hallam 2009: 291) who state that enjoyment is vital for motivation.

This view was validated by another participant who stated that naturally, all humans are improvisers, which he refers to as general improvisation. However, he denotes expert musicians as stylistic improvisers, which describes improvising at an innate level. The need for novice improvisers to bridge the gap from being general improvisers to becoming stylistic ones serves as a source of motivation. Bridging the gap between these two categories of improvisation requires a great amount of practise, and therefore intrinsic motivation, which, according to O'Neill (1999) (in Hallam 2009: 288), affects the effort that one puts into their development. This also has an effect on self-efficacy. Ely and Rashkin (2005: 399) note that if a jazz musician is said to have high self-efficacy they should be aware of their current abilities and their future potential, as an absence of this awareness may lead to them remaining novice musicians.

Participant C accentuates the significance of having integrity as an improviser, by mentioning the use of written solos. Written improvisations are customarily created to aid a musician in their development, as they are the written representations of the interpretation of master solos. However, he notes that some novice improvisers, due to their insecurity regarding improvisation, often learn these solos and pass them off as their own during performances. He even goes so far as to say that memorised solos are the biggest threat to improvisation.

Novice players applying written solos instead of their own may be as a result of them having performance goals rather than learning goals. This issue is further explored by Elliot and Dweck (1988) (in Hallam 2009: 288), who state that performance goals are steered towards avoiding negative commentary and aiming for purely positive feedback, whereas learning goals involve recognition for acquiring new knowledge and skills. Therefore, novice improvisers need to be motivated and have learning goals, thus structuring their learning in a way that they desire to create their own improvisations. Once the learning goals – own solos – have been achieved, Austin (1988, 1991) and Schmidt (2005) (in Hallam 2009: 289) confirm that an individual's motivation increases, as they are able to master previously unknown skills. This emphasises Hallam's (2009: 285) view in which the importance of social approval in improvisation is emphasised.

Acquiring musical integrity emphasises the importance of cognition in motivation, as the improviser has to envision themselves as an expert improviser, which serves as a motivator, and suggests the avoidance of written solos. This issue underlines the significance of self-regulation in acquiring improvisational skills, which Ely and Rashkin (2005: 402) describe as a structured process regulated by intrinsic motivation. Self-regulation involves a recurrent cycle of acquiring new information, adding to current knowledge, reflection and feedback, working on problem areas, and repeating this cycle in order to promote growth and meaningful learning. Therefore, for an improviser, this suggests constantly working on developing one's improvisational skills, and reflecting on what has been learned and what needs improvement, which will not be possible if solos have been memorised.

According to Hallam (2009: 291) the study of Western classical musician drop-outs led researchers to identify elements that resulted in decreased motivation in musicians. Socio-economic status was found to be one of these elements. The environment or socio-economic situation that musicians find themselves in was seen to affect their motivation. One

participant went so far as to compare his experience while studying and working in Europe to being in South Africa, and how this was reflected in the music. Relating to his stay in Sweden, he expresses that he did not have to pay for his studies but rather received pay for attending school, the medical system was free, and transport was extremely reasonable. This is in contrast to South Africa, where he had to worry about paying for everything. He states that as a consequence of the economic situation in Europe the music has more space and a soft approach, whereas in South Africa all his frustrations are reflected in his music.

However, Hettema and Kenrick (1992) (in Hallam 2009: 286) differ from this outlook by stating that one is responsible for their own environment, and can alter it or seek a more conducive environment. The suggestion therefore is that although there may be certain factors that may affect an improviser's learning environment, they are ultimately responsible for how this affects them.

### **5.4 Superordinate theme 3: Processes in acquiring improvisational skills**

The final superordinate theme investigates the mandatory procedures that any aspiring jazz musician or improviser has to endure advancing from a novice to an expert player. The subordinate themes to emerge were organic versus structured learning, practice strategies, learning and preparation, factors affecting practice, and developing identities.

Lehmann *et al.* (2007: 65) differentiated between formal and informal practice. The former involves setting goals and receiving feedback as to whether they have been met, or an indication of areas that need correction. Relating to informal practice, Lehmann *et al.* (2007) emphasise partaking in various activities and environments that promote the enhancement of musical abilities, for example jam sessions or gigs, where one can learn from other musicians, or receive feedback from their peers after a performance. Goals and feedback are therefore a requirement in both formal and informal practice.

Pinheiro (2011: 2) analysed the processes involved in jam sessions. He found that in this informal practice setting, there are five fundamental procedures involved that aid in improvisation, namely: repertoire selection, which serves as the basis for soloing; execution



of the melody, which includes stylistic accuracy; solo sections for improvising, usually against the backdrop of a rhythm section; trades, which encompass the musicians learning from and feeding off each other; and the introduction of the piece. From a jam session setting, Pinheiro (2011: 3) states that the musicians can evaluate their playing based on their interaction with other musicians and how the audience responds to their playing.

As stated by both Lehmann *et al.* (2007: 63) and Jørgensen *et al.* (2009: 625), practice, whether formal or informal, should result in learning and a positive adaption of behaviour, so one needs to ensure that they are indeed absorbing knowledge and a change in performance. In both formal and informal practicing environments, it is important to monitor progress to ensure that learning is actually taking place, hence the authors suggest the setting of goals, attempting to accomplish them, and evaluating whether the outlined goals have been met. This step monitors whether the necessary skills are being acquired. The importance of feedback on improvisations was also highlighted by Pressing (1987: 5), who stated that it aids growth and as a consequence, the advancement from being a novice to an expert musician. Indubitably, the knowledge and execution of jazz rudiments and technique are necessities for any improviser. Jazz technique, according to Berliner (1994: 65) and May (2003: 245), includes the following: knowledge of the various harmonic progressions, for example, the blues progressions, and rhythm changes; harmonic comprehension; aural ability; scales; and jazz theory. When constructing a solo, jazz theory is particularly crucial, as it assists in scrutinising chord structures, substitutions, extensions, musical form, and note selection. The importance of technique and rudiments was reinforced by the entire sample group, who stressed the importance of working on technique during practise sessions. The participants included patterns, licks, etudes, drumming scales and sight-reading as important elements of jazz technique and rudiments. One participant noted that a lack of technique is limiting, in that although one may conceptualise great ideas, a lack of technique will result in the inability to execute them.

The importance of jazz technique and rudiments in the acquisition of improvisational skills was confirmed by Madura (1996: 252) and May's (2003: 245) studies, which explore the associations between success in jazz improvisation, and the variables involved therein. To support Berliner's views, the knowledge of jazz theory and technical ability were found to be indispensable in the understanding of harmonies and improvisation. One participant underscored the importance of jazz technique rudiments by mentioning an important

misconception – that good technique is often seen as a skill that is mastered only by Classical musicians, which he views as untrue, as good technique is not limited to a specific genre or style of music. Another participant referred to the knowledge of jazz rudiments and technique as the roots of jazz, and although in his experience numerous musicians try to avoid it, it is a critical factor in the acquisition of jazz skills.

The six South African jazz musicians find the development of one's personal sound or identity to be crucial in expert jazz playing. This is supported by Lehmann *et al.* (2007: 68), who mention that following the acquisition of the technical aspects involved in jazz improvisation, one is able to develop their own sound and take a more mature approach to improvisation. Developing a unique sound is therefore reliant on a firm knowledge of jazz rudiments and technique. The majority of the participants feel that having a unique sound is a significant distinguisher between novice and expert players. This was also shown in a participant's previous response, in which he emphasised not having a teacher as a means in developing one's musical identity. One participant states that, in contrast to American jazz musicians who often sound similar, South African musicians must strive to have their own unique sound. This involves utilising the harmonies as a point of departure, or sometimes just disregarding them and creating new concepts, as stated by participant F. A musician that is highly revered and was mentioned by numerous participants was Miles Davis, due to his approach to jazz – his note placement, deep-simplicity, and his ability to own a composition and dispute the norms. The mere fact that his uniqueness was emphasised in the responses of the different participants serves as a confirmation that the most respected jazz musicians are those who are able to contribute something new to the style through an establishment of their personal sound and identity.

The importance of expressing what you feel in your heart or expression of self was found to be a significant contributing factor in improvisation for South African jazz musicians, with one participant articulating that this results in the most beautiful music. This was confirmed by a second participant, who stated that some people view improvisation as a technicality, instead of playing what they feel in their hearts, which detracts from the music. This is confirmed by Berliner (1994: 127), who expresses that once a personal sound is formed, self-expression is a defining feature of one's interpretation.

Throughout the interviews there were notable metaphors that were used to reflect the integral processes in the acquisition of jazz improvisational skills. Participant A referred to jazz as “democratic music” and “Nelson Mandela” music. The comparison to a democracy or the South African icon, Nelson Mandela, can be seen as the participant viewing jazz as a style of music in which everyone has the freedom to contribute their views and opinions regarding improvisation, without being discriminated against. Participant B and C compared improvisation to language, stating that as much as there are distinctive rules that apply in grammar, there are certain rules that have to be adhered to in the acquisition of improvisational skills, such as the knowledge of technical rudiments. Also, as much as you have to make sense and follow a logical sequence of events when telling a story, the same applies to the construction of a solo. Improvisation was likened to art by participant E, who compared working with other musicians to several artists collaborating on one painting - there has to be a common vision for a beautiful result to be produced.

Participant B conveys the intimate nature of improvisation by comparing it to both love-making and a navigator. He states that you have to take an individual on a journey from one point to another, ensuring that they are happy at the end. This particular metaphor is supported by Norgaard (2011: 116) whose study of artists’ thoughts while improvising revealed that it is important to shape solos in such a way that the listener is transported, through notes and patterns, to a build-up which results in a climax, followed by a condensing of the atmosphere, which Norgaard refers to as “architectural structure”.

A common characteristic among the majority of novice improvisers is the fear of making mistakes. Surprisingly, the participants affirmed that making mistakes is an integral process in acquiring improvisational skills. Surprisingly the results revealed that the majority of the participants had no set system or method that they employed during their practice sessions. One participant states that there is no specific formula for practicing improvisation, as every musician is different. When questioned about the most effective method of practicing improvisation, one participant simply stated that he does not know. Although the musicians do practise improvisation, the results found that they were unaware of the procedures involved therein, therefore the process of practising improvisation is an unconscious one.

Only one participant had a precise method of practising, mentioning that he uses a method that he adopted from the iconic jazz trumpeter, Wynton Marsalis. This method involves

focusing on four aspects during practice times: sound, technique, transcriptions, and improvisation. According to this participant, Marsalis suggests spending 50% of your practice session working on technique, 25% on improvisation, and 12, 5% on sound and transcriptions, on a daily basis. These percentages are divided accordingly, based on the time that one has available to practise. This underpins Ericsson and Lehmann's (1999: 695) definition of practice, which is referred to it as a structured activity that helps to improve and monitor certain aspects of one's playing. This participant may have been the only participant to state a specific method of practice, as he is employed in a higher education institution and provides music lessons to young adults, and it is therefore necessary for him to be able to advise the learners on effective practicing methods or techniques. Participant E was the only one to note the significance of warming up prior to each practice session, probably due to him being the youngest participant.

The participants outlined the importance of not only focusing on traditional techniques, but incorporating modern techniques as well. One participant indicated that aside from working on scales and harmonies, he also works on sight-reading and transcribing during technical practice. Dedicating time to technique allows him to execute this. Jørgensen *et al.* (2009: 265) affirmed the participant's thoughts on the significance of practicing technique, by stating that practise improves technique.

Although only discussed by one participant, the use of play-alongs is a component to be considered for an aspiring improviser. He stated that he constantly uses play-alongs, as it feels as though he is playing with a band, which assists in the simulation of a performance environment. The importance of simulating a performance environment is elaborated upon by Lehmann *et al.* (2007: 63), who state that this adds value to practicing. Lehmann *et al.* (2007: 75) also state that simulating a performance environment endorses good practice. A study by Chaffin (2007: 383) focusing on the retrieval and memorisation procedures of a concert pianist found that practicing in the actual performance environment is beneficial for a musician.

Dedicating practice sessions to remedy problem areas or weaknesses is a critical step for any potential improviser. Two participants stated that over the years, they have learned to structure their practice sessions based on areas that need improvement. One went further to

state that he develops and constantly repeats exercises to overcome his weaknesses, and then is eventually able to overcome the problem(s).

The entire sample group reiterated the significance of memorisation in improvisation. Pressing (1987: 19) reveals an improvisation model pertaining to the acquisition of improvisational skills. His model found that long-term memory was crucial in the production of improvisations. This notion was confirmed 24 years later by Norgaard (2011: 116) who found “auditory memory”, which is memorised music that musicians frequently draw from, to be an essential generative strategy when approaching improvisation. Johnson-Laird (2002) also found that long-term memory is important in the generation of solos. Participant D’s response supports the literature, as he states that when playing a challenging piece such as *Giant steps* by John Coltrane, due to the numerous key centres and the fast tempo of the piece, instead of analysing the piece fully, he often goes back to the digital patterns that he has memorised. Lehmann *et al.* (2007: 63) refer to memorising as an activity that musicians should constantly engage in when improvising, to aid development.

All the participants reinforced the importance of addressable memory by stating that it is important to use highly structured practice and to consciously memorise a piece before performing it. Chaffin *et al.* (2009: 352) distinguish between two memories: associative chains and addressable memory. Associative chains involves unconscious memorisation and focuses only on motor skills, so the player has no recuperation tactic. Addressable memory involves consciously memorising a work so that one can find their place at any given time. Expert improvisers access addressable memory.

One participant noted a similar issue by stating that it is important to memorise a work successfully, as sometimes external factors such as nerves and having musicians in the audience may lead to choking. It is therefore essential that a work is memorised in its entirety. This is in agreement with Chaffin *et al.* (2009: 358), who state that efficient memorisation and practising of performance cues is vital, as choking may sometimes occur due to overthinking. Knowing the different performance cues and sections of the work will allow one to continue. Chaffin’s (2007: 383) study revealed that memorisation involves initially sight-reading a piece wholly, segmenting and then joining the different sections, then consciously memorising and practising it in a performance environment. These two final steps are the most time consuming. The pianist studied mentioned familiar patterns, retrieval

organisation, and retrieval practice as critical steps in expert memorisation, which was also acknowledged by Groome (2004: 114).

Five of the participants note the importance of constantly attempting to memorise a work and its changes so that soloing may be effortless, and even go so far as to state that musicians that memorise the changes will be better improvisers as they are familiar with the subject matter and have the freedom of expression and stretching their intuition. Participant D stressed that unless a piece is memorised, one will not be able to improvise at their peak.

Six working memories that expert musicians are able to utilise when recalling a work are identified by Chaffin *et al.* (2009: 354): 1) auditory memory; 2) motor memory; 3) visual memory; 4) spatial memory; 5) emotional memory; and, 6) structural memory. Based on these memories, when a piece is effectively memorised a musician should be able to: 1) hear the piece in their head, so that they are able to know their location within the work at any point; 2) memorise the motor functions for proper execution of the work, which requires thorough practice; 3) have a mental image of the score and motor positions; 4) be able to find their position within a work; 5) understand the appropriate emotions for different sections within the work; and 6) be able to recall the harmony, melody, rhythm, and form of the work precisely. The individual functioning and collaboration of all six memories results in linguistic memory, and therefore verbal and internal thoughts throughout a performance.

A strategy deemed essential by the participants was playing as a soloist and in ensembles, and knowing how to approach improvisation from both perspectives. When improvising as a soloist, participant B and E stated that one is able to play whatever they feel, limited to their own instrument, whereas in an ensemble setup, you are directed by the direction the band takes. Their views are echoed by participant D and E who mention that when playing as a soloist, one has the freedom to build up their own theme. Participant A and D noted that playing in an ensemble is easier, as one has to make sure to sound interesting when playing alone. Participant C highlights the difference effectively in saying that when playing alone, rhythm, harmony, and melody need to be considered, as opposed to an ensemble where some of these elements are already taken care of by the other instrumentalists. Playing with an ensemble, according to participant A and D also requires being constantly aware of others and finding your space within the music, while playing as a soloist requires one to be extremely interesting to the listener, as noted by participant D. With ensemble playing being

considered an important strategy, the importance of social interaction in the acquisition of jazz skills is evident. The importance of ensemble playing was noted by Pinheiro (2001) and Berliner (1994). Pinheiro (2001: 3) stated that when working with other musicians, interaction is inevitable, as repertoire selection, transference of ideas, and enjoyment involve active engagement among musicians. Berliner (1994: 65) further states that ensemble playing is a necessity in promoting improvement for any novice player.

Understanding the difference between practice and play, and knowing when to do which, is an essential practice strategy for any jazz musician. As stated earlier, practice refers to focused, purposeful, and structured practice with the aim of gaining knowledge. Contrasting, play, which involves working with your current knowledge and practicing material you already know for enjoyment, as opposed to development. The mistake that a lot of potential jazz musicians make is that they are unable to discern when to use these two strategies. One participant stated that a common error is that musicians jam (play) during their practice sessions, which should not be the case. He suggests setting aside time to jam, similar to participant C, who states that he makes time to practise factors such as technique, and in his play time he does “fun and stupid” things, and also produces compositions. Participant A also mentioned that once he reached expert level, he found that his practise involved just playing.

The difference between practice and play is discussed in Ericsson and Lehmann’s (1999: 695) definition of practice. They defines practice in the following manner: “Structured activity ... with the explicit goal of increasing an individual’s current level of performance. In contrast to work and play, it requires the generation of specific goals for improving and the monitoring of various aspects of performance”. From this definition, it is clear that practice is aimed at growth, whereas with play, one remains at the same level.

Learning and preparation incorporates five specific processes: listening, copying, repeating, analysing, and creating. These processes refer to the assimilation of musical information and ensuring the transference from aural to cognitive understanding. Berliner (1994: 88) highlights the importance of musicians listening to recordings with the intention of learning. This is confirmed by the participants, who state that listening allows one to add to their knowledge by picking up different elements from the music they listen to. Participant C states that attempting to improvise without listening, is pointless. When listening, it is therefore important to know what one is listening for.

The participants noted the importance of listening to and copying what they heard on records in their musical development. The ability to transcribe and imitate other musicians is one that is respected among jazz musicians, with Madura (1996: 252) and May (2003: 245) stating that aural and imitative ability is an essential skill in improvisation. Imitating or modelling the improvisations of jazz masters, according to Berliner (1994: 88), allows improvisers to improve on their expression and musical dialect. He adds that transcribing allows one to build a rich vocabulary, and to improvise at one's full potential. The importance of repetition when practising or learning new material was also stressed, with the participants mentioning that repetition should lead to one being able to not only do this physically, but to apply mental rehearsals as well. Sloboda (1985: 216) reveals that skill acquisition incorporates the cognitive stage, leading to the associative stage, and finally, the autonomous stage. The last of these stages involves thorough repetition in ensuring that the skill becomes autonomous, resulting in mastery of the skill.

The participants mention that analysing what one listens to leads to a greater understanding of improvisation. This involves analysing components such as the melody, harmony, and key centres. Analysis involves transferring all the material that has been listened to, copied and repeated. May (2003: 245) also found cognitive skills to be essential to jazz improvisation. The importance of analysing recordings was also mentioned by Berliner (1994: 88). One participant states that he always superimposes his own ideas when listening to recordings, which enables him to create his own improvisations, and he is always looking to create something new. Creating involves taking everything learned and developing a unique sound, which Berliner (1994: 127) states is a positive outcome of modelling other musicians.

These five individual processes: listening, copying, repeating, analysing, and creating, were found to work hand in hand by the participants, who featured the different steps in their practice routines. Participant C affirmed that one has to go through the different stages, so that they can eventually create their own sound.

The six professional South African jazz musicians interviewed mentioned several factors that influence the amount of time they dedicate to practice. Their responses were in line with the study by Ericsson *et al.* (1993), which found that the best performers practised for greater amounts of time. This finding was supported by Jørgensen and Hallam (2009: 266) who found that expert performers reach a certain amount of hours of practice by a certain age. The



results found that the musician's practice time has decreased when compared to their student years, with all the participants stating that finding time to practise is a great challenge.

Participant F explained that he practised more as a student because he had to bridge the gap between himself and his peers, but currently, he sometimes only gets to practise on stage.

This result coincides with two studies by Jørgensen and Hallam (2009: 266) and Altenmüller and Schneider (2009: 341) who found that younger learners practised more frequently, with those who were intent on becoming professional musicians practising more.

One participant noted that he does not need to practise as much as he did before as he now has a command of the instrument. This supports Lehmann *et al.*'s (2007: 138) notion that knowing the amount of time that one should commit to practising comes with experience and knowledge. The participant mentioned that due to the reduced amount of time that he has for practicing, he focuses more on the quality, as opposed to the quantity, of his practice sessions. At their level, due to the reduced amount of practice time, the participants highlighted the need for quality practice sessions, with some stating that the significance of what is done during practice times is vital, as it is pointless dedicating hours to practice if the results are futile. As a result, practice sessions need to constantly be focused and consistent.

The requirement to provide financially is another factor that affects practice times. The participants noted that they had to work (performing, travelling) so that they could provide for their families' financial needs, with some managing their own careers and companies. Although one participant mentions that this is not an excuse for not practicing, he adds that it is a factor that needs to be put into consideration. This resonates with Lehmann *et al.* (2007: 75) who state that when considering practice time, the human aspect needs to be deliberated.

The importance of physiology - knowing your body limits and breathing techniques - is underlined by participant F. He states that knowing these limits allows one to structure practice based on their abilities, and to avoid over-working their body, which may lead to damage. Lehmann *et al.* (2007: 75) consider physiology to be a human aspect that affects practice time. This is supported by research conducted by Jørgensen (1997) and Lammers and Kruger (2006) (cited in Jørgensen and Hallam 2009: 266) who, after studying conservatoire musicians, found that keyboard players practised more than other instrument groups, due to the physiological demands of the other instruments.

Gaunt and Hallam (2009: 75) and Lehmann *et al.* (2007: 67) both found that adults can sustain four to five hours of practise as a result of the effort involved therein. Practising has to be habitual for the body to meet the required internal and external demands. It is important to consider, as reflected in a study by Fishbein and Middlestadt (in Lehmann *et al.* 2007: 69), that exceeding one's physiological abilities may lead to physical and neurological injuries, as stated by participant F.

Two participants mention that although finding time to practice is a challenge, they will always ensure that they find the time when they have an upcoming gig. This suggests that gigs contribute positively to practice time. However, the opposite is also true, as can be seen by one participant who mentions that lately, the majority of his practice time is dedicated to learning repertoire for gigs. He also adds that although this may affect his practice time, he tries to learn new things from this repertoire. Therefore even though gig repertoire may consume practice sessions, musicians should find constructive ways in which to approach the music, so that something new can be learned.

One participant's living conditions do not allow him to practise his primary instrument, the piano, as freely as he would like, due to the noise it would result in. However, instead of using this as an excuse not to practice, he has modified his environment and practises on a different instrument. This is reinforced by Lehmann *et al.* (2007:62) who emphasise the importance of the practice environment in promoting successful practice. Hettema and Kenrick (1992) (in Hallam 2009: 286) note that one is responsible for altering their environment if displeased with it. When planning practice times, it is therefore vital to contemplate whether the setting will be conducive for effective practice.

Participant D maintains that he has focused practice sessions on a daily basis, with varying durations as his schedule allows. He goes on to declare that practising in the morning allows one to construct a routine. This notion is corroborated by Jørgensen *et al.* (2009: 268), who verify that an important strategy for planning practice sessions is the organisation of practice. This includes scheduling daily practice sessions either at the same time every day, or based on their daily timetables. The most successful conservatoire students practised in the morning and at night, with a break during the day. Therefore, they observe the importance of musicians knowing their peak times and organising their practice times based on this, and according to what they need to achieve in their practice sessions.

## 5.5 Conclusion

The discussion of the results obtained from the interviews provide some perspectives of expert South African jazz musicians on improvisation, and how they believe the skill is acquired. Their responses not only provided information regarding factors unique to the South African context, but on an international scale too. The musicians continually stress the importance of active listening to various genres, transcribing the improvisations of masters, emotional expression, motivation in promoting growth, the collaboration of formal and informal learning, and promoting valuable practice in obtaining jazz and improvisational skills.

The proposition from the participants is that successful acquisition of jazz skills should lead to the generation of a unique musical identity – personal sound. Additionally, self-expression is an accurate reflection of a mature musician. The participants credit this expert level of playing and interpretation to several influences, which include being self-taught, having a formal education, family, performance experience, flexibility in various instruments, and having musical role models.

The outcomes bring to light specific dynamics unique to the experiences of South African musicians. This involves the benefits of growing up in the African church setting, the political history of the country, socio-economic situation, and the influence of the diverse South African cultures. The participants also express diverse self-beliefs which influence the manner in which they approach improvisation, such as the conception that improvisation is uncomplicated. Therefore there are certain elements in the acquisition of improvisational skills in South African musicians that have been adopted from the American and European jazz cultures, but there are factors unique to the South African milieu.

## Chapter 6

### Conclusions and recommendations

#### 6.1 Introduction

The primary objective of the research was to explore the manner in which six South African musicians acquire and practice the skill of improvisation. This was done by probing their formative influences in the acquisition thereof, investigating their methods of practising jazz improvisation, observing similarities between the experiences of the participants, and examining ascertaining elements that are unique to the South African improvisational style.

The first chapter provided a background and rationale, research questions, aims, and the key concepts of the study. Chapter two presented a literature review on the concepts of improvisation and practice. Some of the main subjects reviewed included: the acquisition of jazz skills, models of improvisation, formal and informal practice, motivation, creative processes, and memorisation, among others. The third chapter offered a description of the method undertaken in the collection, analysis, and interpretation of the results. Chapter four supplied an analysis of the data gathered from the conducted semi-structured interviews, and revealed the three superordinate themes and 17 related subordinate themes which the study produced. The fifth chapter provided a comprehensive discussion of the themes presented in chapter four.

This concluding chapter is intended to provide a summary and conclusion to the study based on information gathered, studied, collected, analysed, and discussed in the preceding chapters.

#### 6.2 Research questions

The study sought to satisfy the following primary research question: How do South African musicians acquire and practise the skill of improvisation? In the hope of answering the main research question, secondary questions were derived in order for a thorough understanding of

the primary research question. The following section presents the final conclusions - firstly to the secondary research questions, followed by the principal research question.

### **6.2.1 Secondary research questions**

#### **What are the most prominent formative influences in the acquisition of improvisational skills?**

The study revealed numerous factors that had a large influence on the mode in which the expert jazz musicians acquired improvisational skills. The most prominent formative influences were found to be the following: 1) being self-taught versus having a formal education; 2) a church environment; 3) emotions; 4) parents as musicians; 5) listening and transcribing; 6) working with various musicians; 7) instrumental versatility; and, 8) the political environment of South Africa.

All the participants were initially self-taught and later received formal training. This proved to be significant to the manner in which six South African jazz musicians approach improvisation. A self-education benefitted the participants in that, as mentioned by Jaffers (2006, in Vitale 2011: 2), they were able to lean towards more popular styles of music such as gospel or jazz, and not classical music, which typically transpires in a formal learning environment. The participants concluded that the benefit of being self-taught is that the first experience of improvisation is one's own – learning how to produce a beautiful sound from the instrument is improvisation in itself. The participants' drive, desire, and motivation to improve culminated in pursuing a formal music education to supplement their self-acquired knowledge. They acknowledged that one of the biggest challenges of being self-taught is a lack of structure. The central aspect of having a formal education was that the participants had teachers who would guide the learning process and monitor their learning, although one participant emphasised that this might be a hindrance in the development of one's personal sound. The advantage of both these methods is that similar methods of measurement can be used through social interaction, such as peer evaluation at jam sessions and gigs, or the response elicited from the audience, which was displayed in the study previously discussed in which Pinheiro (2011) focused on the creative processes involved when jazz musicians engage in jam sessions.

The black South African church worship setting, in which self-taught musicians are afforded the opportunity to accompany a host of singers, despite their level, was found to be a great formative influence. In this environment, the musicians were able to develop their aural ability, accompaniment and improvisational skills. An additional benefit of playing in the church was that the participants were able to see first-hand the manner in which singers were inspired and directed by their emotions, which the participants mentioned was an integral factor in jazz improvisation. The ability to express emotions influenced the manner in which the participants approached improvisation. They felt strongly that the audience should identify emotion through their improvisation. Fathers who had pursued professional careers in music were found to be an enormous formative influence in the way the participants approached improvisation or music in general. One participant stated that his father's success as a jazz musician was one of the most significant influences on his early improvisational style. The exposure to local and international musicians, various musical styles, and approaches to the jazz genre was also found to be an immense influence. This emphasises the importance of listening and being open to experimenting with and infusing elements of music from around the world.

The entire sample group repeatedly stressed the importance of listening to and learning from other musicians. Listening is a fundamental formative step for any novice improviser. The collective view was that you cannot expect to be a great improviser without listening to other musicians, whether through recordings or live performances. Listening allows the musician to conceive of new ideas or concepts that they can employ to improve their own playing or to create new music, and this involves, as stated by Berliner (1994: 88), listening to jazz masters. Listening should therefore be purposive, which results in imitation, as discovered by Madura (1996: 25). Active or purposive listening is critical in the acquisition of jazz improvisational skills. It is important that when listening, aspirant improvisers need not limit themselves to listening to musicians that play their primary instrument. It is equally important to be acquainted with a variety of instrumentalists. A notable factor to emerge from the study is that the participants' ability to play multiple instruments influenced their improvisational skills given their knowledge of a variety of instruments' technical and tone ability.

Both extrinsic and intrinsic motivation were found to be essential in the acquisition of improvisational skills. One participant expressed that he was motivated by the urge to bridge

the gap between him and his peers, which reflects both intrinsic and extrinsic motivation. Self-theories and beliefs, such as improvisation is easy or natural, were found to be significant in the way the musicians approached improvisation. However, the participants agreed that while improvisation is a skill all musicians are capable of, stylistic improvisation requires more effort.

Finally, the political climate in South Africa as a result of the apartheid Era was found to have a significant influence on the musicians. The Group Areas Act, implemented on 27 April 1950, limited musicians in that they could not perform in certain areas, and they were also not afforded the opportunity to play or learn how to play Western instruments, as can be seen by participant D who only started playing the saxophone in his twenties. The result of past was that musicians developed in the church, a unique South African sound was established, the musicians had an ability to play multiple instruments, however, they were limited to only playing certain instruments.

### **How do six South African jazz musicians practise jazz improvisational skills, and what role does formal and informal practice play?**

There were several variables that were critical to the approach that the musicians took in practising jazz improvisation. Some participants mentioned that they had no strict method of practicing improvisation, which could be attributed to being self-taught, or that they never consciously thought about the manner in which they approached the practise of improvisation. The participants agreed that working on technical aspects such as scales, licks, patterns, and harmonic awareness, was imperative to acquiring improvisational skills. Technique, as was agreed, was the only way to ensure that ideas thought of during improvisation could be effectively executed.

Similar to classical musicians, the participants found that dedicating their practice sessions to working on problems and weaknesses was beneficial. This also brought to light the importance of knowing when to practice and when to play, in order to ensure that development is constantly taking place. The simulation of a real performance environment, such as improvising to the accompaniment provided in play-alongs, proved to be advantageous, as outlined by Lehmann *et al.* (2007: 75) who state that this endorses good

practice. The participants noted that dedicating time to practice memorising aspects such as the melody, form, and harmony is central to improvising at one's peak. This allows the improviser to improvise without any inhibitions and to build a familiarity with the content of the piece to be played. Memorisation also assists in full expression and openness to more possibilities when improvising.

The study showed that the South African jazz musicians interviewed acquired improvisational skills through an accumulative process of imitating works of their role models, active listening and repetition, analysing recordings or scores, and creating their own ideas based on what they had learned from listening. This method also promotes the important transition from aural to cognitive understanding. Furthermore, the musicians emphasised the essential value of mistakes made when attempting to improvise. Mistakes should not be feared, as these were seen to be part of the learning process.

Both formal and informal practicing is important in acquiring jazz improvisational skills. The study showed that informal practice in the form of jam sessions and merely playing, allows the musician to grow and understand the ideal 'sound' that they are aiming to achieve without the interference of a formal educator or method. This in turn promotes the development of a unique identity. Informal practicing encourages self-expression, while formal practice requires a focused approach on technical aspects of playing and concentrating on feedback from the teacher. The musicians agreed that jam sessions are not only a way to learn from others, but also to grow as a musician by realising what one's level is in comparison to other musicians. However, although there are negatives and positives to each approach, a combination of the two is favourable.

### **How has the South African context contributed to a unique improvisational style?**

The study revealed that there are several factors that have significantly contributed to a unique South African style of improvisation. The following general factors in the acquisition of improvisational skills are not necessarily unique to South African musicians: active listening, transcribing and imitating, memorisation, and formal and informal practice. However, there are a few certain distinctive features to the approach taken by expert South African jazz musicians.



The first uniquely South African influence is the experience of growing up and having the opportunity to learn from informal music making in the South African church. The learning opportunities gleaned from this environment provided the participants with the experience of creating and developing an aural awareness and working with other musicians. This setting also afforded the participants with an uncritical platform within which to learn to provide accompaniment to songs that they may not have known. This in turn allowed them to develop a keen consciousness of melody and harmony. Furthermore, the church setting exposed them to an awareness of the emotional experience transfer involved in musical performance, which is a necessary facet of jazz performance.

The issue of culture and its role in improvisation is to be carefully considered. The various cultures found in South Africa have unique identifying features. The participants pointed out that their cultural heritage subtly influenced their approach to improvisation and jazz playing in general, as did the socio-political situation in the country. For example, the oppression caused by the apartheid era presented the musicians with several challenges. These challenges are evident and translated into the overall South African jazz sound which is unique to black musicians from this era. One participant verbalised this complex concept by stating that European jazz and its improvisation seemed to be more spacious. In other words, the musicians are iterating that it is not possible to remove the socio-political environment and history from their emotional and musical expression of improvisation.

### **What are the similarities and differences between various jazz instrumentalists and their acquisition and practice of improvisational skill?**

The participants played a variety of instruments. The study aimed to understand the similarities and differences in the way South African musicians acquire and practise improvisation. There were several similarities: It was evident that all the musicians placed considerable focus on developing technique, listening to and learning from jazz masters, and drawing from their emotions – which led to self-expression, understanding that mistakes are part of the learning process, and the importance of social interaction in the acquisition jazz improvisational skills, with the benefits of working in an ensemble. Similar to a study by Noice *et al.* (2008), the musicians found that an understanding of harmony, musical form and

structure, for both jazz and Classical musicians, is integral to memorisation. This view was reaffirmed by all the participants, who felt that memorising a work during practice sessions was integral to improvising at an expert level.

The reduction of practice time over the years was a phenomenon that was shared by the participants. This was attributed to the demands of performing and socio-economic demands, with the musicians stating that they practised less due to demanding performance schedules. The participants also noted that their practice times deteriorated due to the need for them to provide financially for their families, as the majority of the participants are breadwinners for their families. The musicians now rather focus on improved quality of their practice sessions, as opposed to quantity in time. Further strategies include knowing when to practice and when to play, simulating performance environments, and working on weaknesses as effectively as possible.

The participants had differences in the structuring of their practice sessions, with some musicians stating that they had no specific method, whereas others had a clearly defined method. One participant mentioned that his method of practice was influenced by Wynton Marsalis, based on an interview that he had heard. Only one participant expressed the importance of utilising a metronome and warming up prior to every practice session, and the importance of understanding the ability of one's own body was mentioned by another participant. However, one participant opposed the views of the participants who claimed that they practised less due to work demands, by stating that although he had had the same experience, it was not a valid reason for reduced practice times.

### **6.2.2 Primary research question: How do South African jazz musicians acquire and practice the skill of jazz improvisation?**

The research led to the understanding that South African jazz musicians acquire and practice the skill of improvisation in specific ways. Pertaining to the acquisition of the skill, this happens through a collaboration of self-education and learning from others, formative influences of growing up in the church, working with other musicians, engaging in formal

and informal practice settings, cultural and personal experiences, understanding different instruments, and actively seeking to learn from and transcribe the works of expert musicians.

Practicing and acquiring the skill of improvisation involves having a high level of intrinsic motivation and self-regulation, and aiming to develop a personal identity and unique sound. Practicing technique, developing self-expression, working on weaknesses and mistakes, simulating performance environments, and dedicating time to memorise work is integral to the acquisition of jazz improvisational skills. Establishing a practice routine and finding a conducive practice environment are also important factors.

### **6.3 Limitations to the study**

The study aimed to understand the concept of jazz improvisation and how the skill was acquired and practiced by South African jazz musicians. In pursuing answers to the research questions, a few challenges were encountered.

The results of the study may not be generalizable to all South African jazz musicians, given that the sample group was small. In spite of this, the interview generated a significant amount of data.

Secondly, although not intended, the sample group consisted of only black and Indian musicians. There are many accomplished white South African jazz musicians, and it would be beneficial to include all race groups

### **6.4 Recommendations**

Future research could focus on the full extent of the influence that the African worship setting has on improvisation. There is no current research that focuses on the church setting and how this informal setting promotes development in jazz musicians, and in turn, their improvisational skill or the general approach that they take to music. It is my opinion that this

is an important issue for future research. Secondly, the role that culture plays in the South African improvisational context needs exploration.

The significance of emotions in developing a personal sound and building self-expression in improvisation can also be explored. Finally, the influence of the apartheid era on jazz musicians and music needs to be probed.

## **6.5 Conclusion**

The findings derived from the interviews suggest that the South African jazz musicians' practicing and acquiring improvisational skills involves widespread methods and factors that are unique to the South African context. Shared views include working on technique, jazz theory, listening, imitating, analysis, and elaborate practise. The importance of both formal and informal learning and practice was found to be crucial. Distinctive factors such as the church, the role of culture and political and socio-economic experiences, and the expression thereof, were found to be unique to the South African context.

May's (2003: 245) study, which aimed to identify the variables that affected achievement in instrumental jazz improvisation, led to technical ability, expression, self-evaluation, cognition, aural ability, and imitation being recognised. These sentiments were expressed by the participants when responding to their early and later influence, motivation, and processes in acquiring improvisational skills. This study provides insights into understanding how six South African jazz musicians acquire jazz improvisational skills.

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## **Addendum A: Interview questions**

### **Semi-structured interview questions**

Background:

- What instrument do you play and when did you start learning to play it?
- Did you have formal music lessons? Please tell me about them?
- Tell me a little about your musical development (concerts, competitions, significant influences).
- When did you start to improvise?
- Tell me about key people or events that influenced your improvisation skills during your formative years?

1. Tell me about your practice technique and strategies as a jazz musician?
2. Has this changed over the years, and if so, how?
3. How many hours do you practice daily/ weekly? Has this changed over the years?
4. How do you improvise? Can you talk me through the processes involved in improvising?
5. Please explain to me, how you were taught to improvise?
6. What in your opinion is the most effective method of learning improvisation?
7. What do you think is the most effective process of practising jazz improvisation?
8. Describe the difference between improvising as a soloist and improvising as part of an ensemble?
9. How do you prepare for the two types of performances – solo or group performance?
10. What music do you listen to? How does this influence your improvisation skills?
11. In hindsight who or what do you think had the biggest influence on your style, practice and improvisation methods?
12. How important is memorisation in jazz playing? Do you feel that this has an impact on improvisation?
13. What advice would you give to aspiring young jazz musicians regarding practicing and improvisation?

## Addendum B: Letter of consent



UNIVERSITEIT VAN PRETORIA  
UNIVERSITY OF PRETORIA  
YUNIBESITHI YA PRETORIA

FACULTY OF HUMANITIES

DEPARTMENT OF MUSIC

TEL: (012) 420-3747 (*Secretary*)

FAX (012) 420-2248

PRETORIA, 0002, SOUTH

May 2013

Dear:

### **PARTICIPANT INFORMED CONSENT FORM**

I would like to invite you to take part in a research project entitled *The acquisition of jazz improvisation skills: Collective case studies with six South African jazz musicians* for my Masters in Musicology under the supervision of Dr Panebianco-Warrens.

#### **Purpose of the study**

The main purpose of this research is to meticulously explore, analyse and discover South African jazz musicians' methods of practicing and acquiring improvisation skills. Probing life stories, influences, and practice strategies, through conversations with established jazz musicians, will assist in gaining a better understanding of this important aspect of jazz performance.

### **Procedures of this study**

The data collection method for this study will involve semi-structured interviews. The interviews will be conducted between the researcher and individual participant, and will be audio-recorded in order to ensure accuracy and validity. The researcher will note all important information and gestures, and avoid contributing personal thoughts, so as to remain impartial.

The participants chosen for this research have been selected because they are professional South African jazz musicians that are regarded as experts in their field, and have experience in the local and international jazz scene.

### **Participants' rights during the study**

You have the right to withdraw your contributions to the study at any time with no negative consequences. You are also entitled to refuse to answer any questions or to stop the interview at any time. Should you agree to the interview you have the right to view the transcribed data before it is analysed and used in the study. You will remain completely anonymous as a code or pseudonym will be used for your data.

### **Benefits of the study**

There may be no direct benefit to you, however, it may be comforting to know that the study may benefit future jazz musicians as research, knowledge and understanding of jazz practice grows. All participants will be expressing their views on their unique practicing environments. A further benefit of the study is that the interviewed jazz musicians may identify areas of learning and teaching that need development in the acquisition of jazz skills. The study will provide a platform for aspiring jazz musicians to better comprehend the most effective methods of enhancing and acquiring jazz expertise.

## **Confidentiality**

Information collected during the study will be confidential. Consent forms for the participants will be kept at the University of Pretoria, Department of Music, Lynnwood Road, Pretoria for 15 years. The researcher and supervisor are the only individuals that will have access to the results. Should a participant wish to withdraw, the relevant data will be destroyed.

## **Possible disadvantages**

I foresee no negative consequences or risks for participating in this research project, as all information will be kept confidential and anonymity is assured.

**Phuti Sepuru**

**Dr Clorinda Panebianco-Warrens**

**Student/ Researcher**

**Supervisor**

Cell: 072 108 4807

Work: 012 420 5382

E-mail: phutisepuru@yahoo.com

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Warrens@up.ac.za



**Addendum C: participant informed consent form**



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TEL: (012) 420-3747 (*Secretary*)

PRETORIA, 0002, SOUTH AFRICA

FAX (012) 420-2248

May 2013

**Participant Informed Consent Form**

**Researcher:** Phuti Sepuru

**Supervisor:** Dr Clorinda Panebianco-Warrens

**Research title: The acquisition of jazz improvisation skills: Collective case studies with  
six South African jazz musicians**

I have understood the content and nature of this study, and I am partaking in this study of my own accord.

With full knowledge, I agree to participate in this study on this \_\_\_\_\_ (day) of this  
\_\_\_\_\_ (month) and this \_\_\_\_\_ (year).

**Participant Details:**

**Participant Name:** \_\_\_\_\_ **Signature:** \_\_\_\_\_

**Participant Contact number No:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Researcher and Supervisor Signature:**

**Researcher Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Supervisor Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_

