CHAPTER 1

INTRODUCTION

1.1 INTRODUCTION

The purpose of this introductory chapter is to present the research problem and motivation for the study, the objectives of the study, the central theoretical argument and the method of investigation. It further contains a description of the main concepts as they are used in this report. An overview of the research report concludes this chapter.

1.2 PROBLEM STATEMENT AND MOTIVATION

Many music educators will agree that performers should express music in a personal, emotional way. It has often been stated that the purpose of training is to enable performers to express music in such a way, while communicating aesthetic impressions to an appreciating audience (Juntunen, 2004:29). Swanwick (1999:30, 31), for example, supports these ideals, stating that music can be viewed as a form of discourse in which individuality is recognized. The effective transmission of educational content through lived experiences is important, since research has shown that the brain was not only designed to know, but also to feel (Juntunen, 2004:81). 'Perfink' – a term coined by Krech and Crutchfield (see Pretorius, 2007:48) – describes this best, since it implies that people perceive, feel and think simultaneously. It is therefore one of the tasks of educators to guide their students, and performers to guide themselves, towards exceptional performances during which these emotive reactions are fused with the structure of the music to create a convincing and moving rendition of each composition. Musical performances are even more likely to be exceptional if both performers *and* listeners pay attention to the expression of emotive content, among other things (Steinberg and Taljaard, 2008).

It is surprising then, when observing music education today, that it often produces students who are progressively *disengaging* from music, and so from themselves. These observations are confirmed by Juntunen (2004:81), who states that formal music education of our time values the intellectual, analytical and technical skills and abilities above the student's abilities of sensing and conveying emotions. Green (2002:128) supports this view when she remarks

that classical instrumental teaching usually takes the form of training rather than education, with the development of technique as the central focus. Koornhof (1999:20) accordingly comments that music education has become "a monstrous left-brain affair" with "too much talking and too little authentic experience". Koornhof explains the dilemma of the inability of formally trained musicians to experience music by stating that only our minds have been trained. "We have become disembodied left hemispheres, alien to our bodies" (Koornhof, 1999:20).

Because of this almost exclusive focus away from subjective experiences, little research has been done on the emotional content of listening experiences of performing musicians listening to their own performances. As is shown in Chapter 2 of this report, the scope for developing different methodologies to investigate the many and varied issues regarding the emotive experiences of performing musicians is large. Because the scope is so large, this study focuses on only a small subset of relevant issues.

The lop-sided focus in music education described above can perhaps be attributed to Positivism, with its focus on objectively verifiable and factual knowledge, which has had a great influence on critical thinking in the arts in the twentieth century (Epstein, 1995:453). Positivistic research is also known as quantitative research (Mouton and Marias, 1989:157), and it aims to answer questions about relationships between measured variables with the purpose of explaining, predicting and controlling phenomena (Leedy and Ormrod, 2005:94). Positivism led to structuralism, which, in music, places the focus mainly on the analysis of structural elements in music (Epstein, 1995:454). Since formal music education is pursued in schools and in tertiary environments where the influences of positivism can be clearly observed, one is not surprised to find the effects of structuralism on many levels in the teaching-learning processes in formal music education. One of these effects is the limitation placed upon emotional experiences and other subjective experiences.

In contrast to this, one observes the effects of informal music education, which seems to afford the opportunity for informally trained musicians to emotionally experience their music much more than those formally trained. They have more freedom to experiment, play together in bands and perform the music they like and can identify with (Green, 2002:104-107). It seems as if informally trained musicians have more opportunities than formally

trained ones to enjoy their own performances (Green, 2002:99-107), which also has a positive effect on their self-esteem (Green, 2002:117-120).[1]

These notions are supported by research, such as that done by Tan and Kelly (2004:191-212), who argue that formally trained listeners mostly focus on analytical aspects of music in listening experiences, rather than emotional content. Their study, which uses graphic representations of short compositions, shows that musically trained listeners are more likely to follow only one structural element, such as pitch (Tan and Kelly, 2004:200) in listening experiences and that they maintain this focus when listening to different pieces of music.

Another study shows that trained listeners also tend to focus on thematic material (Tan, Spackman and Peaslee, 2006:408). Untrained listeners, on the other hand, show an attendance to more than one dimension at a time, such as mood[2], speed, texture and volume (Tan and Kelly, 2004:200), as well as the ability to switch their attention from one dimension of the music to another *within* a single composition (Tan and Kelly, 2004:200). Later research done by Tan, Spackman and Peaslee (2006:48) confirms that untrained listeners also attend to features such as smooth articulation and the complexity of ideas in music. Tan and Kelly (2004:200) conclude that the tendency of formally trained listeners to depict rising and falling pitch levels in graphic representations suggests that they were "primed" to connect height with pitch, as in standard western music notation. Their findings support other studies that showed the importance of musical training in the choice of graphic depictions of structural elements.

Emotive experiences remain important for musicians, whether their training is formal or informal. Persson (2001:275) states that music as a cultural phenomenon would most likely lose its universal appeal if its potential to arouse some kind of emotional response is misplaced. He further suggests that emotions, feelings and affects are mostly communicated in the performance of and listening to music, and that these issues are vital when attempting to understand music. An important question, then, is: "how can the ideals of music education be better realized?" Perhaps music educators could learn from informally trained musicians

[1] One reference on this subject may seem insufficient. It is surprising, though, that these often claimed notions are so seldom documented. This is certainly reason enough to investigate these ideas. The study of the teaching-learning experiences of informally trained musicians is a field of research to which this study hopes to contribute.

[2] It is unclear to what Tan and Kelly refer to here, since they alternate the term "mood" with "emotional intensity". (Tan and Kelly, 2004:200). The precise meaning of "mood" is not clarified in the article. It may, however, refer to the emotive content of listening experiences.

and assess their teaching methods in order to obtain the goal of teaching. As Epstein (1995:483) puts it: "If we can grasp … mechanisms, understand how they work, we move some steps closer to that goal of serious musicians – the most refined shaping of music; the ever-better performance." Understanding the emotional experiences of performers could enable teachers (in formal education, but even in informal situations) to empower their students to reclaim an important part of the heart of music.

If, as Epstein (1995:455) argues, the emotional experience of music has been neglected, also in music education, we need to understand how to better realise this aspect of our intentions as educators. In order to do this, one would want to test observations concerning this neglect more empirically, and develop ways to understand the relevant mechanisms. This is indeed where the present study aims to contribute. There are many different 'mechanisms' involved when we strive to achieve our goals as music educators. This particular study will explore one such mechanism.

This research project is mainly an extension of a previous study (Steinberg, 2006) which explored some of the dynamics of the relationships between emotional responses of listeners from two different South-African cultural groups (Western and Indian) to Hindustani raga samples. Their responses were studied in order to address the hypotheses that it is possible for different groups of listeners to have overlapping features in their emotional experience of music, as well as the ability to share these emotional experiences. A follow-up study was conducted which included African listeners (Steinberg and Taljaard, 2007). More information on these studies is provided in Chapter 2.

The results suggested that listeners might have similar emotional experiences of music, but that it reflects innate and learned characteristics, in which internal as well as external influences can play a role. Questions about the influence of musical training, listening ability and a listener's personality on experiences of music were left unanswered since the methodology was not designed to test for it. The present study is designed to probe for insights regarding these important matters.

Upon re-examining the methodology used in these studies, some inadequacies were found. In this light it is argued that, in order to conduct a more effective study on the emotional content

of listening experiences, the research method needs improvements. Although the connection of music and emotion and the investigation of it is not new (Juslin and Sloboda, 2001:1-487), it seems clear that suitable methods for exploring the emotional content of listening experiences must still be developed. It is therefore the main goal of this study to develop a reliable way to study emotive content of listening experiences, which could then be applied in an educational setting.

The two most important improvements in the methodology of the current study are firstly the development of listening profiles of the participants by means of existing tests and questionnaires, and secondly the continuous measurement of emotional responses through a newly-developed computer program. Interviews are also conducted to supplement the participants' responses during the listening experiences. More information is presented in Chapter 2.

Therefore, the **main research question** is:
Which existing questionnaires and tests can be used most effectively to develop listening profiles of individuals, and how can the emotional content of listening experiences of formally and informally trained musicians be measured continuously?

Secondary questions that rise from this main question are:

- Which existing questionnaires and tests can be utilised to establish profiles of individual listeners and interpret data concerning the emotional content of listening experiences?
- What kinds of continuous testing are used when musical listening experiences are explored, and what kinds of continuous testing are used when emotions are explored?
- How can a suitable method for continuously measuring the emotional content of listening experiences be developed from these existing methods and how can this newly developed method be tested?

1.3 OBJECTIVES

1.3.1 General objective

To develop a method to establish listening profiles using multiple means of testing and to develop a method to continuously record the emotional content of listening experiences of formally and informally trained musicians.

1.3.2 Specific Objectives

The specific objectives of this study are to:

- find and test existing psychological questionnaires and listening tests which can be utilised to establish profiles of individual listeners and interpret data concerning the emotional content of listening experiences;
- investigate different kinds of continuous measurement to explore musical listening experiences;
- investigate different kinds of continuous testing to explore emotions;
- develop and test a suitable method for measuring the emotional content of listening experiences obtained from these existing methods.

1.4 CENTRAL THEORETICAL ARGUMENT

A combination of listening profiles and continuous measurement will enable a more truthful representation of the emotional content of listening experiences, and enable researchers to compare the experiences of formally and informally trained musicians.

1.5 METHOD OF INVESTIGATION

- ***Research design***

  This was an empirical, methodological study, using a mixed-method design. Both qualitative and quantitative methods were used to obtain and analyse data.

- ***Participants***

  Two groups of musicians participated in this study, with both groups being experimental. The groups consisted of five participants each, and are described in this study as formally trained and informally trained musicians. All participants were

young adults studying at the North-West University, Potchefstroom Campus at the time of testing.

- ***Procedure***

  The participants were selected based on their involvement in music performance as well as availability to participate. Signed consent forms were obtained as well as permission from parents in the case where a participant was still a minor. Since this study aims to explore the emotional experiences of music, two personal musical tracks as well as four prescribed musical tracks were used in the methodology. Personal musical tracks were performed by the participants themselves. Recordings were made of these performances and used in the continuous measurement of self-report. The prescribed musical tracks consisted of existing recordings of a Hindustani raga and three Hindustani *alap* samples.

  The methodology used to test the participants consisted of two parts: listening profiles (Part I), and the continuous measurement of self-reported emotional response to music (Part II). Each of these parts consisted of various tests and questionnaires – response formats based upon on existing research - that the participants had to complete. Both parts were supported by supplementary semi-structured interviews conducted with the participants individually. Data was obtained during three test periods. Test Period 1 consisted of Parts I and II together with interviews. Test Period 2 and Test Period 3 each consisted only of Part II with interviews. More information is provided in Chapter 3.

- ***Measuring instruments***

  Listening profiles (Part I) consisted of a demographic questionnaire, the Tomatis listening test and the NEO Personality Inventory (Revised), which each participant had to complete.

  The continuous measurement of self-reported emotional response to music (Part II) used a computerised questionnaire named ‘Ponto Vista’, consisting of various verbal and non-verbal tests and response formats to measure participants’ emotional response to music. Ponto Vista was specifically designed for this study. There were four questions in Ponto Vista that participants had to complete. Question 1 consisted

of the sorting of emotion words[3] and was based upon an article written by P.R. Shaver, J. Schwartz, D. Kirson and C. O'Connor (Shaver *et al.*, 1987). Question 2, during which all musical tracks were played, consisted of a word checklist, a colours checklist and a facial expressions checklist, which participants used to indicate emotional responses to the specific musical track. The word checklist was derived from the results of Question 1. The colours checklist was experimental. The facial expressions checklist was based upon an article written by P. Vanger, R. Hoenlinger and H. Haken (Vanger *et al.*, 1998). Question 3 provided participants with an opportunity to describe their experience of the music they just listened to in their own words by means of a free description. Question 4 consisted of rating scales which participants use to rate the psychophysical parameters of pitch and volume levels, tempo, rhythmic and melodic complexity, as well as the appropriateness of a term to describe the musical track in question. The rating scales were based upon an article written by L.L Balkwill and W.F. Thompson (Balkwill and Thompson, 1999).

Participants listened to seven musical tracks in total, the first track being only an exercise track to familiarise themselves with the various questions and the procedures. Questions 2, 3 and 4 were completed for each track.

The semi-structured interview that supported Part I and II consisted of questions relating to participants' involvement in music, performing, music education and training, musical experiences at school, recording background, the emotional perceptions of own performances, and a discussion of the results from Part II of each of the three Test Periods. More information is provided in Chapters 2, 3 and 4.

- ***Ethical aspects***

  A formal application was filed with the ethical committee of the Faculty of Arts of the North-West University. All information regarding the participants was treated as confidential and is therefore published under pseudonyms in this research report.

[3] Although the words in the list were presented in their noun form (Shaver *et al*., 1987:1065), the 135 emotions provided in the article by Shaver *et al*. (1987:1064-1072) are mostly referred to by alternating terms 'emotion names', 'emotion terms', or 'emotion words'. The authors would often also just use 'names', 'terms' or 'words' when referring to the 135 emotions. For the purposes of this report, the terms 'emotion words' or just 'words' will be used.

1.6 MAIN CONCEPTS

Presented here are some of the main concepts as they are used in this research report. Each concept is also described in order to avoid any misinterpretation.

1) Emotive content of listening experiences: This term refers to those emotions identified by the participant as being part of their listening experiences when listening to a specific musical track. From empirical research it can be concluded that perceived expression depends both on factors in the composed structure, as well as on factors in the performance (Gabrielsson and Lindström, 2001:223).
2) Continuous measurement: This term is used consistently in literature and means 'without break', therefore indicating that responses are measured without interruption (Schubert, 2001:393). In terms of this study, it means that participants are required to indicate their responses *during* the listening experience while the music is playing, and not after the music has played.
3) Self-report: This term refers to the response format most commonly employed in continuous measurement of listening experiences (Schubert, 2001:394). It indicates that personal details and descriptions or indicators of experiences are provided by the participants themselves, and not by an outside person.
4) Listening profiles: This term was designed for this study and refers to the image of the listener that is created by interpreting the results of the questionnaires and tests which were employed to determine the personal and musical background, listening abilities and personality of participants, as well as the relationships between these aspects.
5) Formally trained musicians: This term refers to musicians who have received formal music education by means of study programs acknowledged by the South African Qualifications Authority (SAQA). In terms of this study it refers to B. Mus-students who specialised or commenced to specialise in performance.
6) Informally trained musicians: Based on Green's description (2002:5) this term refers to musicians who acquired their skill and knowledge of their instrument by other means than formal education, such as teaching themselves, learning by watching and listening to musicians around them as well as studying recordings and performances. It may also include some form of formal training, but very little. For this study the term 'informally trained' is used instead of Green's term 'popular' as to indicate that the participants involved are not professional or well-known musicians, but students who perform in some way or another on a regular basis.

7) Personal and prescribed music: The music used in this study can be divided into two categories. Personal music refers to recordings of two pieces performed by the participants themselves. Each participant was allowed to select and record two pieces of his/her own choice to be used in this study. Prescribed music refers to music that was previously unknown to the participants, in this case a Hindustani raga and three *alap* samples. The raga is performed by a professional bansuri player accompanied by a tanpura player and tabla player. The *alap* samples are performed by an unknown bansuri player.

1.7 OVERVIEW OF THE RESEARCH REPORT

Chapter 1 serves as the introductory chapter. In **Chapter 2** the studies and measuring instruments upon which the research design of this study was based are described and the motivation for including them is given. It also contains a short overview of existing studies and the methods used to measure emotional responses.

Chapter 3 presents information on the empirical study. This includes information regarding the research design, methodology and measuring instruments, participants, recordings, procedure, and data capturing and editing. **Chapter 4** provides a detailed functionality description of the computerised questionnaire, Ponto Vista, which was used by the participants during Part II of the methodology as described in Chapter 3. It contains a description of the several windows and functionalities contained in the program as well as a description of visual indicators and the report created by Ponto Vista at the end of each session. The chapter further contains other general information about the program as well as a time line and development stages of Ponto Vista. Each description is accompanied by figures that consist of screen shots taken from a demonstration version of the program or report to inform the reader

Chapter 5 contains the results and discussions on the results of this study. **Chapter 6** is the concluding chapter of this research report and provides a summary of the results, a description of the personal experiences of the researcher while completing this study, methodological advantages and limitations, conclusions and recommendations for further study. There are several **addenda** included in this report as well as a **compact disc** which can be used by the reader, especially when reading Chapter 4.