Chapter 1

INTRODUCTION

1.1   Justification for the study

Many scholars have noted that education and specifically individual music teaching have expressed a need for new trends and development because of both the current world teachers and students live in and their worldviews (Burke 2005; Garcia 2002; Miller 2007; Usher and Edwards 1994:1-2, 7-8; Watson-Gegeo 2005:43-44; Williams 2001:115 and Zimmer et al 2004).

Coil (2000:8-9) explains that teachers so often take the 'rear view mirror' approach in that the educational process is treated in the same way as when one has been picked up on a radar going too fast. Teachers in general look backwards to their role models and try to do the things that have worked in the past. The author sides with Coil in that the same behaviour patterns in my teaching started to occur before this study was launched. My current thinking is not based on formal data obtained by questionnaires, but by observations in my own teaching and that of other music teachers in private music practices as well. This urged me to select and research the thesis topic chosen. It is very important to adapt to the attitude that "excellent teachers will be lifelong learners" (Coil 2005:9). Change has always been part of the human condition and it will continue occurring at an evermore rapid pace throughout the 21st century.

Current life forces teachers, at least to a certain extent, to keep up with technology, new methods of teaching and learning, using creative teaching materials and a holistic approach to students. If these demands are not kept up with, both teachers and their students will become more and more under- and

unemployed because of a lack of relevant skills (Coil 2000:9; Gaunt 2010:202; Odam 1992:161 and Rigg 2008:112). However, most private/studio music teachers who come to such awareness will not have access to the material in and services of an academic library, and this motivated the writer to condense what she was privileged to have access to.

Coil (2005:12) defines the four essential keys for successful teaching and learning in the 21st century as Flexibility, Resources, Choices and Planning. Each of these key ideas moves away from the 19th and 20th century 'fixed idea' mode of everyone learning and doing much at the same time to the information age model of individualized lifelong learning. Teachers having openness and vision in their teaching approach will foster higher-level thinking abilities in their students (provided a connection is first made). If teachers are to structure their teaching in ways that enhance critical and creative thought this should achieve increasing success amongst students.

- Flexibility: Flexible teachers are risk takers who are willing to make changes and try new ideas. "A 'one size fits all' lesson usually fits no one" (Coil 2005:12). Flexibility allows for differences in learning styles and/or modalities, strengths/weaknesses in Multiple Intelligences, ability levels, pace of learning and student interests (Coil 2005:13).

- Resources: Resources include the use of technology which was not ne-cessarily accessible ten years back (internet, computers, i-pods and information on CD Rom, for example, both for teachers and students to use).

- Choices: Coil (2005:14) expresses here that choice affects education as it does all other aspects of life. Teachers should structure many choices into each student's music lesson and students should have choices in their learning as well. Of course it is necessary for the teacher to give the student choices with which he/she is comfortable.

- Planning: Planning should include balanced lessons with activities stimulating creativity, motivation and whole-brain learning. This includes a basic holistic approach to the student.

Growing awareness of the above aspects of teaching stimulated the writer in searching for an appropriate theoretical framework from which to function. Postmodernism embraces many approaches and insights without putting any limitations on where things begin and end (Beck 1993). I believe I have been something of a postmodernist most of my life, even before my exposure to postmodernist writings. As research continued, I increasingly realized that aspects I was addressing in this study were connected to a postmodern orientation/worldview.

Beck (1993) depicts all experiences as influenced by concepts that are seen through individual cultural lenses. That is where the aspect of perception made an impression on the researcher, especially how to expand teacher perception so that awareness in this regard is not limited. Corsini (2002:705) ascribes two meanings to the term perception.

- In vision, the ability to see in three dimensions, objects in the distance, and also to be aware of the extent of the distance from the self.

- The awareness of having the senses being stimulated by external objects, qualities, relations; immediate experiences, as opposed to memory; ability to select, organize and interpret various sensory experiences into recognizable patterns; the interpretation placed upon a stimulus or experience, determined by general organizational principles.

Aspects in the thesis relating to perception draw more on the second meaning of the term as well as its philosophical explanation as set out in chapter 3.

The aim of this thesis was not to arrive at a specific teaching philosophy, but to research and consider the application of various aspects relating to teaching, thus creating an awareness for music teachers that students should not be labelled as first perceived before all aspects relating to the child as a whole have not been taken into account. Engaging in this endeavour, open-ended possibilities may exist that certain teaching aspects (like having goals for lessons and working with a lesson plan in mind) may be more fixed, but other aspects (as to how and through which means this could be achieved) can be less calculated as they depend on the student-teacher interaction.

1.2   Research questions

The study is based on the following main research question:

How can the understanding of aspects related to learning strategies in music expand teachers' perceptions?

The following three sub-questions arose from the main research question:

- In selecting appropriate learning strategies for individual music pupils, how important are trends in thought, frameworks and concepts relevant to teaching music?

- How relevant is the study of brain profiles, personality types and Multiple Intelligences in influencing teaching and learning styles in music?

- How can intrinsic motivation be expanded in music teaching?

1.3   Aims of the study

The main aim of the study is to explore the expanding of music teachers' perceptions of learning strategies in the 21st century. Although much 'fuzzy'

terminology exists within this investigation, the author has sought to describe the 'more[1]' meanings of terms like Holism, intelligence, learning, Modernism, perception, personality Postmodernism, teaching, temperament and whole-brain learning. The notion exists that the expansion of perception of learning styles can only be achieved if the interrelatedness of all the qualities of these terms is taken into account when teaching. Rader and Rader (1998) highlight the above ideas in the following quotation:

> As we study how the brain learns, we increasingly recognize the interactive – as opposed to the transmissive – nature of the educational process.
>
> The interaction of learner-initiated learning, narrative comprehension, and metaphoric perception, is what constitutes the best education. Learning that is passive, that is without meaningful context, that is fragmented and disconnected, is, in many ways, not only wasted but harmful effort.

To take this process further, the researcher investigated how Modernism influenced music teaching and what the limitations are that this 'modernistic' style of teaching brought. How to address the limitations and overcome the problems Modernism created was viewed through a postmodern lens. The author by no means denies the good that Modernism brought, but has attempted to move beyond its fixed parameters. Williams (2001:122) portrays this idea as follows: "postmodernism is in many ways a reawakening of strands already present in modernism … thus a rereading of modernism rather than a rejection of it".

As does the author, Usher and Edwards (1994:9) support the above quotation, noting that although an excellent author, Williams (2001:122) claims to be a postmodernist but cannot specify exactly what the term means or how and where Postmodernism breaks with Modernism. This illustrates to the reader how

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[1] 'more' in this context refers to the author attempting to describe the meaning of these words from a multidisciplinary perspective (philosophical, psychological and musical).

complex these terminologies are and that applying them to a musical context is not an easy task.

1.4 Research methods

This study will focus mainly on qualitative and descriptive research methods in that the "aim of qualitative analysis is a complete, detailed description" (Neill:2004).

1.5 Methods for data collection

The researcher collected as extensive as possible an amount of data and organized it into a coherent whole to portray the topic being studied.

Data was collected using the following methods:

1.5.1 Literature review

In the literature review the researcher provides an overview of what other scholars' theoretical perspectives and previous research findings entailed, regarding views on learning and teaching styles in music; teachers' perceptions regarding this; brain profiles; personality types; motivation and Multiple Intelligences. Thereafter revisioning of ideas, perspectives and approaches of value in the 21st century is offered.

1.5.2 Developmental research

The researcher sought to find any developmental trends within a particular research area of each chapter. If such trends could be observed to exist she further sought to build on these findings in order to arrive at rethinking current

frameworks and teaching methods that could be beneficial to teachers, pupils and other scholars interested in the various aspects of the study.

1.5.3 Grounded theory research

As part of this methodology, the researcher aimed to arrive at a framework developed from the data gathered during the literature review.

A theory in the form of a visual model, or series of hypotheses, is offered to explain the phenomena in question. The theory depicts the evolving nature of the phenomena and describes how certain conditions lead to certain actions or interactions and how those actions or interactions lead to other actions with a typical sequence of events being laid out. The form the theory or framework takes is based entirely on the data collected (Leedy and Ormrod 2005:141).

1.5.4 Auto-ethnographic research

Auto-ethnographic research is a form of an autobiographical, personal narrative that explores the author's experience of life (Auto-ethnography 2010; Feuer 2007:122). It is descriptive, presenting personal philosophical orientations and ideas. This research investigates a holistic view pertaining to students, individual personality and brain profiles as well as teaching and learning behaviour in a total context, not in small entities (Friedman 2004:376).

Pilegaard et al (2010:46) describes the auto-ethnographic approach as meaningful where a music studio teacher 'is living the teaching experience' and a group of co-teachers can conceptualize a framework, and analyze the data. It can create a challenge to keep up with observations and experiences encountered (Friedman 2004:380). This description links up with a narrative approach as mentioned above.

1.6 Theoretical orientation of the study

As a theoretical orientation for the thesis the author found it difficult to assign one specific approach to the study, chiefly because of the interdisciplinary nature of the research. Although various aspects of the methods for data collection as discussed previously were drawn upon, none of the particular methods can be singled out as serving as the theoretical approach. Critical theories (Hofstee 2006:125-126) and systems theory were also examined during the course of the study and the author did not find any of these theories entirely appropriate for the thesis, due to limitations in construction and design. For instance, the terms interdisciplinary and multidisciplinary were applied within education and training pedagogies to describe studies that cut across several established disciplines or traditional fields of study (Interdisciplinary 2009). Intradisciplinary refers to areas of knowledge and skills seen as a coherent whole within one subject area (Elements of Integration in the Classroom 2009). These three terms (inter, multi and intradisciplinary) are related to eclecticism as seen in the paragraph below.

The limitations within systems theory are that the current study does not draw on one aspect fitting into another aspect to make up a bigger whole, but rather a connectedness between fields of study which are in relation to one another. In arriving at a theoretical framework, choice is exercised as to what is useful from various fields (Systems theory 2009). The author adopted the term "eclectic[2] approach" as used by Esping (2000:44), complemented and influenced by a 'beyond Modernism' philosophical approach in linking and explaining concepts and terminologies relating to the flexible, fluid nature of the study. Eclecticism is a conceptual approach that does not hold rigidly onto a single set of assumptions or ideas, but instead draws upon multiple theories, styles or ideas to gain complementary insights into a subject (Eclecticism 2009).

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[2] Consisting of parts selected from various sources (Eclectic 2009).

The concept of Holism (Holism 2009) also served as a valuable approach linked with the study. The opposite of Reductionism (Reductionism 2009), it determines in a particular system as a whole how the various parts behave in relation to one another. Therefore the whole is more than the sum of its parts. Holism is more fully discussed in chapter 3.

Esping (2000:44) describes teachers teaching the way they prefer to learn. Therefore it is important to be aware of one's own learning style as well as the intelligences that are favoured. Some students will excel with the teacher's preferred teaching method but others will only respond if the teacher changes his/her method. There are certain foundations applied in teaching but not a universal 'right way' to teach.

Referring to a 'beyond Modernism' approach draws upon elements and orientations related to Postmodernism. Defining the term Postmodernism, viewing its historical and philosophical context, the author aimed to extract those elements most relevant to the context of the study. This was by no means a simple task, since scholars find defining and describing with clarity certain terminologies and viewpoints difficult (Adams 1997; Beck 1993; Burke 2005; Klages 2003; Postmodernism 2006; Senft 2005 and Williams 2001:122).

Klages (2003) describes Postmodernism as a complicated term or set of ideas. It is hard to define because it is a concept that appears in a wide variety of disciplines, including architecture, art, communications, fashion, film, literature, music, sociology and technology. Both Adams (1997) and Burke (2005) are of the opinion that the process of arriving at a definition is further confused by the frequent interchange of the terms Postmodernity and Postmodernism. They continue that social scientists tend to use Postmodernity, while those in the arts and humanities prefer the term Postmodernism. Adams (1997) concludes:

Postmodernity refers more to a cultural condition or state of being while postmodernism focuses more on a cultural movement or a plurality of movements within culture.

… postmodernity is the condition in which late twentieth-century culture finds itself; postmodernism is a reflection upon that condition and a response to it.

In order to explore an eclectic approach further, it is important to portray the various philosophical ideas supporting the understanding of Postmodernism. Many scholars regard the term as a constantly moving object, almost like a liquid substance, that cannot be pinpointed or fixed (Adams 1997; Cahoone 2003:1 & 9; Craft 1997:85-86; Grenz 1996:11 and Postmodernism 2006). Senft (2005) wrote: "Postmodernism is a Condition, not a Thing or Movement." According to the wikipedia.org website, the entry Postmodernism (2006) describes the term as "a type of intellectual thought that is often considered a reaction to modernism." The summit.org website with the Worldview-Postmodernism Fact Sheet (2001:1) entry views Postmodernism as:

… a broad and somewhat ambiguous term used to describe a philosophical and cultural reaction to the convictions of Modernism (which is sometimes equated with Humanism). Postmodernism is the philosophical proposal that reality is ultimately inaccessible by human investigation, that knowledge is a social construction, that truth-claims are political power plays, and that the meaning of words is to be determined by readers not authors. In brief, reality is what individuals or social groups make it to be.

Although Postmodernism is seen as controversial by scholars, most agree that postmodern ideas have had a major impact on philosophy, art, music, critical theory, literature and interpretation of history since the late 20th century. Craft

(1997:83) describes the effects of this impact in the following way:

… our society is transforming. Children, young people and adults are faced with increasing chaos of choice and social identity in all spheres of life. The implications for education are far-reaching. There is an increasing

need for teachers to support pupils in making sense of and surviving in unstable and unpredictable surroundings.

The concepts in this thesis regarding perception, learning, understanding the brain and intelligences, teaching and motivation are presented in relation to the teacher and pupil from a postmodern orientation. The author has chosen this orientation mainly because current life is constantly changing and challenging teachers' value systems and educational viewpoints. It has also been found through teaching experience that it is almost impossible to conclude with any right or wrong answers with regard to teaching methods or learning styles. Indeed, as Woods & Jeffrey (1996:6-7) formulate it, teaching is a creative act, because "every situation is different … Only so much is predictable. There is a need for teachers to be flexible."

In the theoretical orientation, the author deems flexibility in music teaching necessary in putting forth open-ended ideas and in formulating expanded teaching strategies and viewpoints concerning interactions between teachers and pupils during the learning process. This eclectic approach further presents the reader with ideas, open for exploration, in order to stimulate creativity in teaching and learning (Tarnas 1996:395-396).

1.7   Layout of the study

The thesis consists of seven chapters of which chapter 1 is the introduction and 7 the conclusions & recommendations.

Chapter 2, the literature survey, explores an overview of the main research trends on which the thesis is based. It aims to provide the reader with a comprehensive understanding of various research methods, theories and viewpoints of notable scholars throughout the subsequent chapters.

Chapter 3 inquires into trends in thought, frameworks and concepts relevant to music teachers in the 21st century. Traditional and progressive approaches regarding trends of thought are investigated and influences from disciplines such as philosophy and psychology considered. The aim here is to provoke awareness amongst music teachers that aspects such as perception, own musical background, openness to new ways of thinking and Holism are all interrelated in some way or another. The chapter explores the idea that there is not 'the' best way or 'one' way of teaching, but a 'more', open-ended way of teaching with ample possibilities.

Chapters 4, 5 and 6 function together as an extension of ideas, expressions and thoughts rooted in chapter 3. Chapter 4 deals with various learning and teaching styles which are respectively teacher- and pupil-related. It addresses types of learners, learning style models and the aspect of motivation amongst pupils.

Chapter 5 investigates an overview of the human brain, focussing on the areas involved in learning. Whole-brain learning is discussed and some focus drawn to the interaction of personality types and temperament of students and teachers in learning and teaching.

Chapter 6 considers the possibility of not one intelligence, but Multiple Intelligences present amongst students and teachers. Music teachers are encouraged to be more open minded and aware of the differences amongst their students and themselves. The chapter creates space for and acceptance of students being 'smart' in different ways without being classified or labelled as having a certain limited intelligence as determined by traditional IQ tests.

1.8   Delimitations of the study

In this study, age of pupils is non-specific. Music teaching in the context of this thesis refers broadly to individual teaching (any instrument, not just piano),

although at times smaller groups apply. Teaching big groups and/or adults is excluded from specific consideration.

1.9   **Notes to the reader**

- During the course of the thesis, learners will be referred to as children, pupils and students interchangeably.

- Teachers are referred to as such throughout, and not as lecturers or facilitators.

- The terms individual music teaching and studio teaching are used interchangeably. Other terms that are also used occasionally are one-to-one instrumental teaching and private music teaching.

- The thesis describes a very broad survey of educational psychology as it pertains to individual music teaching. Because of the wide scope of fields addressed, an attempt was made to mindmap the most useful terms. Choice had to be exercised as to which aspects to include and exclude.

- Where internet sources are cited with only an author/term as entry and a date, the assurance is given, regarding the question of no page numbers, that the author has searched the particular site to make sure that the article or entry does not have assigned page numbers.

- Although issues related to Modernism and Postmodernism are mainly of background significance to this thesis, it was found during the research process that more time was involved in exploring this field than with any other topic. The reason for this is no doubt the fuzzy and complicated nature of especially Postmodernism.

- The author is aware that some references are made to sources as far back as the mid-1930s. This could indicate that research is outdated, except where investigation conducted during these years laid an important foundation for future research, and theories could then be further expanded in the area of music teaching and learning.

- Wherever Wikipedia is given as a reference for a statement/definition in this thesis, the researcher made certain to check the information against other sources, because of somewhat negative perceptions which do exist concerning the website. The author chose to use some references from this site because of the simplicity with which complicated concepts are often explained; a useful reference list with books and websites is given at the end of each article and this site is a good starting point to gain further information on a wide variety of topics.

- U.K. spelling will be followed throughout the thesis except when direct quotations from American sources are used.

Chapter 2

LITERATURE SURVEY

Research is the process of going up alleys to see if they are blind - Marston Bates (Academic Research: Quotes and Jokes 2009).

2.1   Introduction

The literature survey originated in a general interest regarding music teachers' perceptions of learning and teaching styles. This led to further investigation into areas such as studies related to brain profiles and Multiple Intelligences.

The author viewed the above through the theoretical lens of an eclectic approach and a postmodern orientation. The interrelatedness of these and other terms underlying the theoretical framework are discussed under 1.6. The above approach and orientation was chosen, rather than any other framework, because it provided ample freedom in ideas regarding teaching and learning as well as taking the best qualities from various disciplines and theories. Parameters in Postmodernism are not fixed relating to expanding teacher perception of the teaching and learning process. The theoretical framework also influences the way in which the teacher views the pupil and his/her abilities. Sources such as Cahoone (2003), Coil (2000 & 2005), Erickson (2001), Grenz (1996), Jordaan and Jordaan (1998), Reimer (2003) and Tarnas (1996) proved to be enlightening in this regard.

Since I am interested in various aspects of music pedagogy, and its development in the 21st century, I started internet searches and was able to locate a number of music teacher forums, article search engines (www.findarticles.com; www.musicresearch.org) and other informative online articles available from

www.musicteachermag.com and www.pianoeducation.org. Research further developed in reading specific piano pedagogy literature (Bastien 2003, Dubal 2004, Gordon 1995, Harris and Crozier 2000, Neumann 1982 and Uszler et al 1991) to review teaching tools currently in use.

2.2   Shifts in thought relevant to music teachers in the 21st century

Deciding on a theoretical orientation for the study was not an easy task, since there is such a vast number of different orientations and because of the inter-, multi- and intradisciplinary nature of the research (Elements of Integration in the Classroom 2009). Some of these orientations include an eclectic approach (Eclecticism 2009; Esping 2000) combined with a 'beyond Modernism' philosophical approach, Holism (Holism 2009) and Postmodernism (Adams 1997; Beck 1993; Burke 2005; Klages 2003; Postmodernism 2006; Senft 2005 and Williams 2001). See section 1.6 for a detailed description of the above orientations.

Reading about different theories and orientations the author came to the following realizations:
- Each theory/orientation has its own 'language', history and pioneers
- One particular theory/orientation can have a great number of sub-terms relating to its full understanding
- There is often confusion regarding the definition of terminology within one theory/orientation
- Philosophical viewpoints are not always consistent throughout a theory/ orientation.

When interpreting learning strategies for piano music, for example, the 'rules' as to how they should be approached are not always specific. Choices are left to the teacher. Teaching the same concept to different pupils results in a myriad of ways it can be done, since no two pupils are alike in personality and ability

(Woods & Jeffrey 1996). Therefore I decided to use an eclectic orientation for the study, because eclecticism is a conceptual approach that does not hold rigidly onto a single set of assumptions or ideas, but instead draws upon multiple theories, styles or ideas to gain complementary insights into a subject (Eclecticism 2009).

2.2.1 Shifts in humanistic trends

Applied to music teaching, a humanistic trend denotes a point of view that students are essentially good and constructive, that the tendency to self-actualize is inherent and that, given proper environment, students will develop to their maximum potential (Corsini 2002). This approach links with Holism in that it emphasizes spontaneity and the development of human potential through experiential means rather than analysis of the unconscious or behaviour modification (Corsini 2002; Jordaan and Jordaan 1998).

The meaning of holism is dependent upon the discipline it refers to and is thus difficult to define (Collins et al 2006; Crystal 2006a, 2006b and Kavanagh 2002). In teaching and learning, Holism is seen as a type of personal therapy in which the therapist is viewed as a teacher and the patient a student. The teacher's task is to create conditions within which the student may choose to learn. Responsibility for learning is up to the student. For optimum growth, all aspects of a person should be developed to the fullest in harmony with each other (Corsini 2002).

2.2.2 Shifts in cognitive trends

In cognitively oriented trends, the objective is typically to identify and monitor thoughts, assumptions, beliefs and behaviours that are related and to identify those which are dysfunctional, inaccurate or simply unhelpful. This is done in an

effort to replace or transcend them with more realistic and useful ones (Cognitive behavioural therapy 2009).

Baron et al (2006) and Sternberg (2006) observe that cognitive processes in learning interact with each other and with non-cognitive processes. Applied to a musical context, teachers and students will in part remember what they perceive. Similarly, thinking processes depend in part on memory processes. Research shows (Gardner 1993, 1999, 2003; Herrmann Brain Dominance Instrument 2007 and Jensen 1996b, 1998, 2000, 2007) that learning causes change in the brain. Therefore cognitive processes can affect biological structures and vice versa (Sternberg 2006).

2.2.3 Philosophical trends that influence teachers' current world views and teaching

Current life in a postmodern world is constantly changing and challenging teachers' value systems, perceptions and educational viewpoints. This orientation creates the possibility of open-ended ideas and creativity in teaching.

The difficulty underlying use of the term Postmodernism is that as orientation it is controversial and finding a specific fixed definition is not really possible (Adams 1997, Klages 2003, Morris 2005, Postmodernism 2006 and Senft 2005), apart from definitions being vague and often inconsistent (Craft 1997). Among all the sources consulted the author has found Postmodernism (2006), Postmodern philosophy (2006), Realism (2007), Relativity (2006), Postmodern_music (2006) and Postmodernism_Manifestations (2006) useful in clarifying the term to a certain extent as well as Erickson (2001), Senft (2005) and the Worldview-Postmodernism Fact Sheet (2001). In focusing on the relationship between the terms Modernism and Postmodernism the writings of Burke (2005), Chagani (1998) and Morris (2005) describe the subdivisions of Modernism effectively so that a comparison can be drawn between the two terms. Smethurst (1996) and

Weiss & Wesley (2000) are of the opinion that each and every person's definition of the terms will be different. This opinion is supported by Tarnas (1996) and Postmodernism (2006) in that modern themes like honesty and progress become invalid in a postmodern world on the grounds that every person's definition of the terms will be different. Thus from a postmodern perspective words do not have intrinsic meaning. The meaning they have is the meaning the researcher/ teacher/pupil gives to them. Words are pointers/signs towards understanding. The meaning that is attached to words is influenced by the teachers' own pre-suppositions and pre-understandings.

2.2.4 Relevant views on perception

As is evident from the list of references, much study has been done in the general area of human perception, but less research has been done relating specifically to music teacher perception focusing on individual teaching situations. There are some writers, however, who have been exploring this area (Gaunt 2010:180; Odam 1992:160 and Rigg 2008:109). Being interested in expanding music teachers' perceptions of learning strategies, I undertook an extensive overview of how I would regard the term 'perception' in relation to the study. At first, to gain a broad understanding of the term, I consulted different viewpoints from notable scholars in various disciplines such as education, philosophy and psychology as well as some dictionary entries.

In psychology and the cognitive sciences, perception "is the process of acquiring, interpreting, selecting, and organizing sensory information" (Perception 2007a). Defining the term in general is difficult, because like Holism it depends on the context to which it is applied. The following authors clarify the use of the term to a certain degree from a psychological and philosophical perspective (Collins et al 2006; Corsini 2002; Covey 2004; Grobler et al 2003; Johnson 2005a; Jordaan and Jordaan 1998; McLaughlin 1998 and Martin 2005). For further expansion on perception see chapter 3 section 3.4.

Perception involves both the sense organs (e.g. seeing) and the brain (thinking) (Benson 1998). This is useful in that perceiving and reasoning are two important aspects in music teaching. Thinking and reasoning involve an "out-of-the-box" teaching approach, because students are stimulated to think for themselves. Concepts about learning are not merely dictated and the student becomes actively involved in the process of learning instead of doing exactly as told (Magrath 2007:47).

2.2.5 Biological and aesthetic concepts

Biological concepts referring to a psychological point of view normally denote the study of the nerve cell in order to grasp the structure and operation of the nervous system within the human body. In the context of this thesis the approach is, however, more aesthetic than biological.

An aesthetic approach in music applies to aspects such as creativity (Azzam 2009; Corsini 2002; Creativity 2009; Gardner 2006; Henson and Eller 1999 and Jordaan and Jordaan 1998), preference (Fung 1996; Johnson 2005a; LeBlanc 1982; LeBlanc and Cote 1983; Wapnick 1980 and Shehan 1986), emotion (Butler and McManus 2000; Chen 2001; Corsini 2002:324; Mood and Emotion 2009; Plutchik 2009 and Sternberg 2006) and self image (Self image 2009). The above terms can be seen as being interrelated within psychology and music.

2.3 Examining learning and teaching styles

In discussing the trends and development of literature concerning learning and teaching styles, the two concepts are separated in individual sub-sections, since learning styles refer more to the student and teaching styles more to the teacher. Although the two concepts are discussed separately, however, they do not function on their own and therefore the last part of this section focuses on the integration of the interconnectedness of the two styles.

2.3.1 Learning styles

While researching learning styles it was found that much confusion exists as to exactly what the term means and how it functions in relation to other terms. In order to clarify these misunderstandings it is helpful to stipulate what a learning style is not:

- A personality type
- Temperament
- Multiple Intelligences
- Preference
- Emotional Intelligence
- A brain profile
- An individual's senses
- A thinking style
- Brain dominance
- Intrinsic and extrinsic motivation.

When teachers engage with students in working with their preferred learning style, some of the above aspects may interact, but as individual terms they do not constitute the equivalent of learning styles. Sensory channels (described by Garcia 2002 as learning styles) are visual, auditory and kinesthetic and students have a dominant modality/learning style (Bruckner 2005 and Garcia 2002). Effective learning is also "whole-brained" (Gross 2008 and Leonard 2006).

As referred to in different sections of chapter 4, pupils have different learning styles, characteristic strengths and preferences in the ways they take in and process information (Felder 1996, Gross 2008, Learning Styles Masterclass Notes 2006, Leonard 2006, McKeachie 2006 and Power et al 1999).

2.3.2 Teaching styles

Keeping abreast in the 21st century can be a challenge for most teachers who were brought up with 'low tech' materials. Music teaching has moved on since the 1960s and yet many teachers use tutors devised before then, when there are attractive, relevant methods available in abundance at present. The author is by no means denying the usefulness of older method books, especially the reprinted versions, but it is advised that teachers who still use these books do so in conjunction with newer attractive materials and consider transferring to more recent books over time. Examples of some of the older method books are:

- Edna-Mae Burnam – *A dozen a day: Technical exercises for the piano* (1950)

- John Curwen – *Mrs Curwen's pianoforte method – A guide to the piano* (1913) (see References, First editions 2009c)

- Leila Fletcher – *Music lessons have begun* (1947) (see References, First editions 2009a)

- John Schaum – *Piano course* (1945)

- John Schaum – *The boogie book: Solo piano albums for the young student* (1955) (see References, First editions 2009b)

- John Thompson – *Easiest piano course* (1955) (see References, First editions 2009b).

The author has found both in personal experience and literature study that teachers and authors of piano method books, in the past, were unaware of developing terms in music teaching such as whole-brain (Gross 2008, Leonard 2006 and Power et al 1999), four brain quadrants (Bruckner 2005, Gross 2008, Herrmann Brain Dominance Instrument 2007, Leonard 2006, McKeachie 2006 and Power et al 1999), intrinsic motivation (Dahlstrom 2001, Dev 1997, Heffner 2004b, Madsen 2003, Robertson et al 2008 and Steele 2008a), Multiple Intelligences (Gardner 1983, 1993, 1999, Willingham 2000 and Wise 2001), different types of learning styles (Bruckner 2005, Garcia 2002, Hannaford 1995

and Persellin 1992) as well as perception in relation to teaching styles (Bruckner 2005 and Hannaford 1995).

In teaching situations teachers did not 'identify' these concepts as part of the holistic teaching process. As teachers and authors of piano method books have been compelled to move away from old fashioned teaching styles, opportunities have arisen for more creativity, empathy, well informed teachers with regard to up to date teaching methods as well as new materials (Fraser 2005, Lau 2007 and Marlais 1997), transformation in thinking and better understanding of the students being taught.

Motivation forms an important part of music teaching since it determines whether the pupil's musical experience will be positive or not. Robertson et al (2008) regard motivation as one of the biggest challenges teachers face, since it has an impact on lessons, discipline, stress levels and on pupil results. Success in motivation does not just depend on the student's personality or learning style, but also on how teachers view themselves and their profession. In the process of trying to be motivating, teachers will find all kinds of students that they need to deal with.

2.3.3 The integration of learning and teaching styles

In understanding aspects influencing effective learning and teaching styles, it is important to focus on the interaction between pupil and teacher in relation to the material being taught. The level of interaction between pupil and teacher is determined by a number of factors, as discussed in detail in chapter 4. The teacher, for instance, has his or her own particular teaching style, way of communicating and motivational strategies. During the teaching process, aspects to be considered would be the pupils' brain profiles and personality types. This determines the type of learners they are. Their dominant intelligences and

particular character strengths play an important role in learning (Bruckner 2005, Felder 1996, Gordon and Bull 2004, Hannaford 1995 and Persellin 1992).

2.4   Exploring brain profiles and personality types

Reviewing literature, it was observed that since the beginning of time the human brain and its functions have been studied by various prominent researchers in various disciplines (Altenmüller et al 2000 and Brain Atlas 2006). Research has been motivated by the complexity of the brain and its interaction with other areas of the body.

Distinctions in literature were made in viewing the brain in a purely scientific way (Brain Atlas 2006; Cerebral cortex 2007; Pearson Education 2000 and Telencephalon 2007), for example by neurologists and neurosurgeons, and a more social science-based approach (psychologists, educators and counsellors) (Jensen 1996b, 2000, 2007 and Looi 2008). The latter approach was used as conceptual basis for the thesis.

The old-fashioned way of viewing brain functions influencing learning, personality and ability was that most people have a dominant hemisphere and mostly operate in one of the two (left or right) hemispheres (Altenmüller et al 2000; Holistic Teaching and Learning 2006 and Outlook School Division 2001). In Ned Herrmann's whole-brain model, the brain is seen in four quadrants, where each quadrant displays distinctive strengths. These four quadrants are not a literal map of the anatomy of the brain, but do reflect the ways in which different physical locations inside the skull specialize in different ways of processing information (Bruckner 2005, Gross 2008, Herrmann Brain Dominance Instrument 2007, Leonard 2006, McKeachie 2006 and Power et al 1999).

Brain-based learning is not a magic term that can solve all of education's problems. There is not yet a "one size fits all" brain-based programme, model or

package for schools or individual teachers (Jensen 2007). On the other hand, whole-brain learning uses techniques that integrate the synthetic and imaginative brain skills with the analytical and language skills. Simple strategies can make better use of the whole-brain and can dramatically improve learning (Coil 2000; Gross 2008 and Holistic Teaching and Learning 2006).

Being aware of pupils' brain profiles and approaching them holistically, literature viewed (Big_Five_personality_traits 2009; Boeree 2006; Briggs Myer 2007a; Eysenck 2008; Personality 2007; Personality psychology 2009 and Temperament 2007) deemed it necessary to be aware of different personality types amongst pupils. As a basis, two main personality types were found (introverts and extraverts) (Analytical_psychology 2007; Personality_type 2007 and Roper 2007) which progressed with further research to various combinations that influence and constitute personality.

The idea of psychological types originated in the theoretical work of Carl Jung (Personality_type 2007). When attitudes and functions are combined, eight personality types can be distinguished (Myers-Briggs_Type_Indicator 2007 and Meyer et al 2003) on the basis of the dominant attitude and function. In developing the Myers-Briggs Type Indicator (MBTI) personality inventory, during the 1940s, the aim of Isabel Briggs Myer and her mother, Katharine Briggs, was to make the theory of psychological types, introduced by Carl Jung in the 1920s, accessible to individuals and groups. An important goal of knowing about personality types is to understand and appreciate differences between teachers and pupils.

There is a basic focus on how different individuals prefer and use their perception and judgement (Briggs Myer 2007b and Saadé et al 2006). All the types are equal; there is no best type. The MBTI instrument distinguishes between preferences and does not measure trait, ability or character.

2.5   Perspectives relevant to Multiple Intelligences

Traditional teaching focussed on only two avenues of intelligence: verbal and mathematical skills (Beliavsky 2006; Brualdi 1999; Chambers 2008 and Howell 2004). Currently more and more researchers believe that a multitude of intelligences does exist, quite independently of each other, with each intelligence having its own strengths and constraints (Chambers 2008 and Gardner 1983, 1993).

Howard Gardner's Multiple Intelligence Theory was first published in his book *Frames of Mind* (1983), and became established as a framework from which to understand and teach many aspects of human intelligence. Originally aimed as a contribution to psychology, Gardner's work was soon embraced by education[3], teaching and training communities (Chapman 2006 and Giles et al 2007).

Gardner's 1983 publication proposed the following intelligences: Verbal-linguistic, Logical-mathematical, Visual-spatial, Body-kinesthetic, Musical-rhythmic, Inter-personal and Intrapersonal. Naturalistic, Spiritual/Moral/Existential, Mental searchlight and Mental laser intelligence were added by Gardner in later publications (Armstrong 2000; Brualdi 1999; Chambers 2008; Coil 2005; Gardner 1993, 1999, 2004, 2006; Kaser 2008 and Multiple_Intelligences 2008). Recently two more intelligences have been added by Sherman (2006): Olfactory/Gustatory and Touch- intelligence.

All humans are intelligent in different ways and the types of intelligence that a person possesses (Gardner suggests that most individuals are strong in three types) indicate not only their capabilities, but also the manner or method in which they prefer to learn and develop their strengths and weaknesses (Chapman

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[3] Although Gardner's MI theory is widely accepted by educators, it is rejected by some psychologists and psychometricians on strong scientific grounds (Barnett et al 2006; Gilman 2007 and Smith 2008).

2006). The author views Gardner's work as creating a paradigmatic shift in thinking, because he challenged and challenges traditional, narrower views of intelligence. If teachers teach only one way, only one kind of student will be reached. Students should be taught flexibility and provided with multiple views for understanding the physical, social, the human and the artistic worlds (Beliavsky 2006; Gardner 2004, 2006; Giles et al 2007; Hunter 2006 and Smith 2002).

Selecting the intelligences, applicable in a musical and teaching context, will depend on which of the intelligences is more teacher or pupil related. Some intelligences focus more on the interaction between teacher and pupils.

Apart from the expectation that teachers should show strengths in Gardner's initial proposed intelligences with specific reference to Musical Intelligence and the Person-related intelligences, Emotional and Social intelligences are regarded as important in the music teaching process. These intelligences were added to Gardner's list by Goleman (1996 and 2006). Both these intelligences are relevant to the study in that they link with Gardner's Interpersonal and Intrapersonal Intelligences.

The term Emotional Intelligence (EI) has not only been used by Goleman. Other authors have researched the subject of EI extensively (Beasley 1987; Gibbs 1995; Mayer 2005; Mayer et al 1999; Mayer et al 2004), but it was popularized by Goleman. Goleman called attention to the fact that emotions play a crucial role in everyday life and that emotions always exist (Emotional intelligence 2006a). In order to connect successfully with pupils in a teaching/learning situation it is necessary for teachers to have developed emotional skills within themselves in such a manner that their own self does not overly interfere with the individual being taught (Emotional Intelligence 2006a, 2006b; Goleman 1996, 2006 and Zimmer et al 2004).

2.6   Transformative learning

Mezirow (1991 and 1997) developed his theory of transformative learning through a careful integration of theories, models and ideas from a wide variety of sources. The theory continues to evolve through the inclusion of new perspectives on learning and development. It also includes the kind of learning that helps students make meaning of their lives.

Transformative learning involves experiencing a deep, structural shift in the basic premises of thought, feelings and actions. It is a shift of consciousness that dramatically alters the way of being in the world. Such a shift involves the understanding of self and relationships with others. It also includes an awareness of alternative approaches to living and a sense of possibilities for social justice, peace and personal joy (McWhinney and Markos 2003:20 and O'Sullivan 2003).

Mezirow's three domains of learning are described as:
- Instrumental – gaining of technical knowledge
- Communicative – gaining of practical knowledge, and
- Liberating – gaining of freedom in knowledge (Cranton 1994 and Mentkowski 2000).

Transformation is often triggered by a problem and most of the time transformative experiences are painful to go through. During the thinking phase, it is found that people regard their old ways of thinking and being as no longer adequate and thus change is compelled to happen. Finally, there is an action phase. This could mean moving away from certain belief systems re older methods of teaching: even a complete change in teaching philosophy can result. The process itself may take a long time. It is possible to reflect on something for years before there is a readiness to accept new beliefs and act on them (McGonigal 2005; McWhinney and Markos 2003:24 and Mezirow 1997). Mezirow states that learning "can consist of a change in one of our beliefs or attitudes" but

it is only when the entire perspective on a particular viewpoint or belief is changed that real transformation takes place (McWhinney and Markos 2003:21 and Mezirow 1997).

Within a music teaching perspective, critical reflection is important when teachers need to consider their teaching practices. Often critical reflection arises when the following questions are considered: why do I teach the way I do? What goals do I have for my students and myself as a professional? Once these questions have been seriously contemplated, teachers will be closer to formulating their opinions on transformative learning and how it fits into their music practice (Merriam and Caffarella 1991).

McGonigal (2005) expresses the challenge that transformative learning poses. She explains that presenting new information is not enough to guarantee optimal learning. It is necessary for students to be aware of the limitations of their current knowledge and perspectives. Therefore teachers cannot impress their knowledge on students. A true transformation of students' existing knowledge is required. This is achieved when students are challenged to express an original interpretation of what they have learned and not to seek 'the one correct answer'. This new approach should replace the idea that students previously have learned, practised and been duly rewarded. It will help students to have an opinion of their own and foster intellectual openness when their assumptions are challenged (McGonigal 2005).

2.7   **Flow**

An interesting aspect pertaining to teaching and learning is the concept of flow. Since it is not a major aspect within this study, the literature referred to will only be within the context of the thesis.

Csikszentmihalyi's theoretical model on flow[4] explores the kind of optimal experience that people seem to derive from a wide variety of activities (Csikszentmihalyi 1990; Gelb 2009). Diamond (2009) views flow as allowing utopian thought. Human creativity functions at its peak as a flow between attention, concentration and peacefulness.

Human beings have an inherent drive to know their capacities, to bring order to consciousness and to gain self-knowledge (Davis et al 2000; Elliott 1995; Gardner 1983 and Meyer et al 2003). Through music and other arts people discover a sense of meaning, self-understanding and inner development which results in better self-knowledge (Reimer 2003).

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[4]The state in which people are so involved in an activity that nothing else seems to matter; the experience itself is so enjoyable that people will do it even at great cost, for the sheer sake of doing it (Csikszentmihalyi 1990:4).