THE 'MANDALA' PHILOSOPHY OF MUSIC FOR SOUTH AFRICAN SCHOOLS

MARIO CAROLUS

THESIS PRESENTED FOR THE DEGREE OF

DOCTOR OF PHILOSOPHY

in the Faculty of Music

UNIVERSITY OF CAPE TOWN

15 FEBRUARY 1998

Do not design a philosophy of music for others. Design one for yourself. A few others may wish to share it with you.

(adapted from M. Schafer's 'The Rhinoceros in the classroom')

ABSTRACT

This thesis critically addresses the aesthetic versus the praxial philosophies of music culminating in the philosophical roots of the 'Mandala' approach to music.

The 'Mandala' philosophy of music is based on Carl Jung's psychoanalytic theory as well as David Elliott's 'praxial' philosophy of music. The 'Mandala' philosophy of music rests upon two main tenets namely; that music is to be approached and taught **holistically** and that the significance and justification of music reside in **creative thinking or creativity**.

A holistic approach to music is a humanistic view of education and which differs from the subject-based approach of the past. The emphasis of this approach is on what music practitioners can **do** i.e. their musical products, in the context of particular musical practices. Music is not esoteric aesthetic emotion producing qualities, but rather something that musicians practice within particular musical cultures and styles.

The 'self' as centre of the whole of the person serves as catalyst for creative products, self-growth and enjoyment **in** music. Creative thinking is, inter alia, tantamount to self-actualization, problem-focused learning, transformation and the higher form of integration through music education.

Through descriptive illustrations, analyses, comparisons and syntheses key concepts of this approach are highlighted to support cogent arguments.

This approach differs markedly from the present fragmented, one-dimensional music education approach in South African schools and which still lay stress on the sublime idealism of the aesthetic philosophy of music.

The 'Mandala' approach substitutes aesthetic idealism with artistic pragmatism in the context of music practices and practitioners. The 'Mandala' approach to music emphasizes creative thinking, i.e. creative-action-learning and critical or reflective thinking, as fundamental to music making, to constitute the M.C.T.-model of music. This approach further juxtaposes creative thinking (creativity) and self-actualization as

products or outcomes of both the conscious and unconscious creative thinking of humans.

The tripartite interactions between the creative person, process and product, constitute the integrated condition of knowing. Knowing in music differs from knowing about music. In essence the 'Mandala' approach advocates that music, as product of the 'self', be placed at the core of the school curriculum. From this centre, self-knowledge, self-growth and enjoyment should blossom forth.

The aim is not to create knowledgable musicians, but rather knowing music practitioners 'in situ', i.e. performers, composers and musician-analysers. Knowing in music focuses on the creative intentions or tangible products, i.e.**performing, improvisation/composition** and **analysis**.

Creative products in class could be achieved through creative-action-learning in the context of a proposed intercultural South African Music Model and music curriculum in practice. Practical creative-action-learning music lessons are proposed as guidelines for music practitioners and to stimulate further experimentation.

In conclusion, this approach to music is compatible with outcomes-based education proposed recently by the National Qualifications Framework.

ACKNOWLEDGEMENT

I am grateful to my supervisors, James Van Tonder and Barry Smith, of the Faculty of Music, University of Cape Town, for their invaluable assistance and co-ordinated guidance throughout this research. Thank you to Kobus Minnie, who helped with many of the diagrams and the layout. My gratitude to my wife Natalie, son Mark, and our daughter Inge, for their love, patience and undying support.

ABSTRACT I

ACKNOWLEDGEMENT III

TABLE OF CONTENTS IV

INTRODUCTION 1

CHAPTER ONE: PHILOSOPHICAL ROOTS OF THE 'MANDALA' APPROACH. 2

1. PROBLEM-FOCUSED LEARNING 5
   - 1.1. The Foundationalist Conception of Knowledge Theory 5
   - 1.2. The Problem-Focused Alternative 7
   - 1.3. Educational and Psychological support 9
   - 1.3.1. J. Dewey 9
   - 1.3.2. J.S. Bruner 10
   - 1.3.3. J. Piaget 13
   - 1.4. The 'Mandala' Context of Problem-Focused Learning 16
2. THE CREATIVE THINKING PROCESS 17
   - 2.1. The M.C.T. model 18
3. CREATIVE-ACTION-LEARNING 19
   - 3.1. Music Education Through Creative Activities 19
4. HOLISTIC CULTURAL PHENOMENON 23
   - 4.1. Criticism Against An Integrated Music Approach 29
5. SELF-ACTUALIZATION 30
6. KNOWING VERSUS KNOWLEDGE 31
7. THE INTERCULTURAL APPROACH 35

SUMMARY 41

CHAPTER TWO: THE NATURE AND JUSTIFICATION OF CREATIVITY. TOWARDS A CREATIVE PHILOSOPHY FOR THE 'MANDALA' APPROACH. 43

INTRODUCTION 43

1. CREATIVITY IS THINKING AND MAKING OR DOING SOMETHING ORIGINAL. 44
2. CREATIVITY IS SOMETHING THAT ALL PEOPLE POSSESS AND WHICH IS TEACHABLE, LEARNABLE AND MAY BE ACQUIRED BY ALL. 49

3. CREATIVITY IS A SELF-ACTUALIZATION APPROACH. 50
4. CREATIVITY IS INFLUENCED BY THE SOCIAL CONTEXT OF THE PERSON. 52
5. CREATIVITY INVOLVES BOTH CONSCIOUS AND UNCONSCIOUS DOMAINS OF THE 'SELF'. 54
6. CREATIVITY IS AN INTERACTIVE PROBLEM-SOLVING PROCESS. 59
7. CREATIVITY IS A CONDITION OF KNOWING WHICH EVOLVES FROM A CREATIVE DOER, PROCESS AND PRODUCT IN AN INTERACTIVE WAY. 62
7.1. THE CREATIVE PROCESS 64
7.2. THE CREATIVE PRODUCT 65
7.2.1. Unusualness or Novelty 66
7.2.2. Appropriateness 67
7.2.3. Transcendence or Transformation 67
7.2.4. Condensation or Simplicity 68
7.3. THE CREATIVE PERSON 69
7.3.1. Sensitivity Of Problems 72
7.3.2. Fluency Of Thinking 72
7.3.3. Flexibility Of Thinking 72
7.3.4. Originality 73
7.3.5. Redefinition 73
7.3.6. Elaboration 73
8. CREATIVITY IS THE PHILOSOPHY FOR TRANSFORMATION AND INTEGRATION. 74
SUMMARY 77

CHAPTER THREE: THE 'MANDALA' PRACTICAL TEACHING APPROACH TO MUSIC EDUCATION. 79

INTRODUCTION 79
1. MUSIC MAKING IS PROBLEM-FOCUSED LEARNING 79
2. MUSIC MAKING IS A CREATIVE THINKING PROCESS 81
2.1. Musical Imagination 81
2.2. Product/Thinking Intention 82
2.3. Enabling Skills 82
2.4. Enabling Conditions 84

2.5. Thinking Process In The Central Core 85

3. MUSIC MAKING IS CREATIVE-ACTION-LEARNING 86

3.1. Objectives For Creative Action Learning 86

3.1.1 Person Action Objectives 87

3.1.2 Process Action Objectives 88

3.1.3 Product Action Objectives 91

4. MUSIC IS A HOLISTIC CULTURAL PHENOMENON 95

4.1. Music And Science 96

4.2. Music And Mathematics 96

4.3. Music, History And Geography 96

4.4. Music And Art 97

4.5. Music And Language 98

4.6. Music And Movement 98

5. MUSIC MAKING AS A SELF ACTUALIZER 99

5.1. An Openness To Experience Music Without Distortions Or Projections. 100

5.2. An Openness To Explore Or 'Toy' With Objects 100

5.3. A Creative Attitude 101

5.4. Dual Rationale Experience 101

5.5. Creative Problem-Solving 102

6. THE KNOWING MUSICIAN IN CLASS 102

6.1. Knowing Through Composition 103

6.2. Knowing Through Improvisation 104

6.3. Knowing Through Analysis 107

6.4. Knowing Through Performance 108

7. THE INTERCULTURAL ROLE OF MUSIC 109

SUMMARY 110

APPENDIX A (Tables) 114

APPENDIX B (Diagrams) 129

APPENDIX C (Figures) 140

BIBLIOGRAPHY 168

INTRODUCTION

The first chapter deals with the history of the Philosophical Roots underpinning the 'Mandala' (a Sanskrit word which means a magic circle) approach. The two major opposing philosophies of music prevalent today: Aesthetic versus Praxial philosophies, are critically scrutinized and analyzed. The "power" principles of the 'Mandala' approach absorbs tenets from both Aesthetic and Praxial philosophies, to be integrated with Carl Jung's 'Mandala' concept. Various approaches to music instruction, including the "Activities", "Spiral" and "Action-learning" approaches are described and illustrated. A comparison between subject-based and problem-focused learning elicited educational theory discussion on Dewey, Piaget and Bruner.

Chapter 2 defines and describes creativity (creative thinking) more fully with reference to the creative person, process and product. Special attention is given to the interactive 'Mandala' and the application of creativity to classroom music instruction. The transformative value of creativity within the context of the old versus the new educational approaches in South Africa, culminates into the 'Mandala' justification for transformation and integration in education.

Chapter 3 shows the 'Mandala' practical teaching approach to music education, with an eye on the application within classroom music instruction.

The Appendices list tables, diagrams and figures relevant to the 'Mandala' approach to music education.

CHAPTER 1

PHILOSOPHICAL ROOTS OF THE MANDALA APPROACH

In order to conceptualize music more fully, the Aesthetic versus the Praxial philosophies of music education will be described and compared.

The Western conception of aesthetics is: *"... a passive listener or viewer responding emotionally to an aesthetic creation."*[1] Judith Becker[2] writes: *"[the term (aesthetics) implies] ...a listener who is imagined as sitting quietly with fixed attention upon the musical event"*. Alan Merriam[3] encapsulates the Western concept of aesthetics, into six factors, i.e. psychic distance, manipulation of form for its own sake, attribution of emotion-producing qualities to music conceived strictly as sound, attribution of beauty to the art process or product, purposeful intent to create something aesthetic and the presence of a philosophy of an aesthetic.

Criticism[4] of the aesthetic philosophy of music rests on four basic assumptions. Music is a collection of objects or works which exist to be listened to in one and only one way, i.e. aesthetically. This means that the listener should focus on the aesthetic qualities (structural properties or elements) of works, i.e. melody, harmony timbre, dynamics, etc. The value of musical works is intrinsic or internal. Listening aesthetically to musical works will result in an aesthetic experience (an emotional happening or disinterested pleasure). An aesthetic experience also stands independent from any practical, moral, social, political, religious or personal embodied connections.

---

[1]N. Sarrazin, 'Exploring Aesthetics, Focus on Native Americans,' Music Educators Journal, January 1995, pp. 33-36.

[2]J. Becker, 'Aesthetics in Late 20th Century Scholarship,' The World of Music, 25 no.3, p. 66.

[3]A. Merriam, The Anthropology of Music, Evanston I.L.: Northwestern University Press, 1964, pp. 261-269.

[4]D.J. Elliott, Music Matters, Oxford University Press, 1995, p. 23.

According to the praxial philosophy (Appendix B, Diagram 1), **MUSIC** is an intentional human activity and fundamentally something that people do. It is a four-dimensional concept or tetrad of complementary dimensions involving a doer (musicer), some kind of doing (musicing), something done (music) and the context in which doers do what they do. A musicer is systematic action on its own, musicing is motivated actions, music is goal-directed actions and the context refers to action in context. Music is a multi-dimensional human phenomenon, a diverse human practice consisting in many different musical practices as well as two corresponding and mutually reinforcing activities, i.e. music making and music listening. Music is audible sound events, works or listenables (sounds to listen for) which evolve from the efforts of musicers (musical practitioners) in the context of particular practices.

A comparison between the aesthetic and praxial philosophies of music is summarized in Table 1, Appendix A.

Criticism of the praxial philosophy includes: Elliott emphasizes 'knowledge' which he equates with knowing as a means of acquiring procedural musicianship and listenership. His emphasis on knowledge is in stark contrast with most recent educational developments and trends, which postulate 'knowing' as substitute for knowledge. Elliott believes that in order to find and solve authentic music making problems one needs to develop from a novice to expert level of musicianship or to develop a 'creative musical promise detector'. However, he does not explain how this 'creative musical detector' (expert level of musicianship) is attained or operated to create musical achievements. Elliott equates expert musicianship or truly excellent works with creativity. Only the expert accordingly can be creative so that children cannot (except Mozart, etc.) acquire this potential. Elliott's praxial philosophy is often tautologous[5] and he often contradicts himself, e.g., he first rejected the notion of the creative personality characteristics, yet, later mollifies his position by arguing for creative characteristics toward selfgrowth. Elliott renounces the 'explore-and-discovery' (creative process) notion of creating which he substitutes with 'familiar mental operations' or 'ordinary thought processes'. However, his 'ordinary thought processes' is too general and oversimplistic. What are the parameters of ordinary thoughts conceived as creative? His 'musicianship' remedy poses even more questioning.

---

[5]D.N. Aspin, 'Book Reviews,' International Journal of Music Education, no. 27, 1996, pp. 51 - 60.

Elliott understands music almost exclusively through performance. He tends to neglect the person/musician component who has his own sociologically[6] manifestations, history, culture, territory and cultural space which he shares with others.

David N. Aspin[7] criticizes the praxial philosophy on the following grounds: Elliott's praxial philosophy is marred by neologisms, e.g. 'acontextual', 'educatorship', 'motivic', 'musicer' and 'praxial'. Elliott employs the term 'praxial' in a dubious and ambiguous manner e.g. 'praxis' means either emancipatory social action as postulated by neo-Marxists, or 'thought-impregnated action' as postulated by Aristotles. His apprenticeship model for music education is too narrow and constrained and may give rise to a descent into a 'Ten Quick Tips' approach for effective music teaching. The concept of apprenticeship privileges the notion of 'practice' or tangible outcomes. However, education also relates to thoughts, feelings, emotions, judgements, sensitivities and virtues. Elliott falls short of demonstrating the 'praxial' philosophy of music and also fails to convince the reader **why** music should have a unique place amongst other subjects in schools.

The '*Mandala*' approach is an Action-approach to music which differs markedly from the fragmented unstructured Activities- approach and is an improvement on the Spiral-approach to music. The '*Mandala*' approach embraces many of the underlying principles, ideas and conceptions postulated by David Elliott's 'praxial' philosophy of music (with reservations) and attempts to incorporate these ideas into practical lesson formats. Unlike past approaches (aesthetic education) which highlighted musical works as the starting point for teaching music, the '*Mandala*' approach attempts to utilize creative thinking (creativity) as product of the '*self*' and starting point of our musical endeavours. Creativity as product of the '*self*', however, is viewed within the Jungian context, i.e. as product of both the unconscious and conscious '*self*'. The 'praxial' philosophy's conscious view of creativity is only part of creative thinking. Creativity is revisited and developed so that our music teaching becomes more structured and direct to solve musical problems. Creativity presents tangible skill opportunities which could become discovered aims and goals of the '*self*' and of music.

---

[6]R. Walker, 'Music Education Freed From Colonialism: A New Praxis,' in International Journal of Music Education, no. 27, May 1996, pp.2-15.

[7]D.N. Aspin, 'Book Reviews', International Journal of Music Education, no. 27, 1996, pp. 51 - 60.

1. PROBLEM-FOCUSED LEARNING

Problem-focused learning I believe, is compatible with the '*Mandala*' approach, while subject-based learning is antithetical to the '*Mandala*' approach. The differences between the two types of learning and how these influence music education will be explored in this section. Don Margetson[8] explains the main difference between these two types of learning:

> *"A major difference between problem-focused learning and subject-based learning lies in the processes each adopts. Subject-based learning generally begins with large tracts of subject- matter transmitted by the teacher to the students which they are expected to learn. Problems, if they are dealt with at all, are of a very restricted nature and follow expositions of subject-matter... By contrast in problem- focused learning students begin with a problem. Instead of being presented with subject-matter, undergraduate students normally have to work out, as a group in a tutorial of 2-3 hours duration, what they need to learn in order to solve the problem, then after the tutorial, seek out the relevant subject-matter, usually individually."*

The other differences are listed in Table 2, Appendix A. Table 2 is also relevant to educational transformation in South Africa and where the paradigm shift is from input-based to outcomes-based education.

Subject-based learning with its emphasis on acquiring knowledge forms the basis of traditional teaching and learning in South Africa . Knowledge is the means and the ends of learning and teaching which the teacher uncritically and intentionally transfer to docile pupils. Pupils on the other hand passively digest these knowledge which they later regurgitate during formal examinations. With problem-focused learning the emphasis is on the solving of real life problems and which may become beneficial to communities. Through problem-solving methods pupils discover knowledge while developing competence at the same time.

1.1 THE FOUNDATIONALIST CONCEPTION OF KNOWLEDGE THEORY

Firstly, it should be noted that any suggestion of a basis or fundamental for learning reflects a

---

[8]D. Margetson, 'Understanding Problem-based Learning,' Educational Philosophy and Theory, Vol. 25, no. 1, 1993, pp. 40-55.

foundationalist conception of knowledge. Subject-based learning according to Don Margetson[9], reflects a foundationalist epistemology. The epistemological priority emphasizes knowledge as a prerequisite for problem- solving. Action is based on knowledge to be gained only through an established institution, i.e. university, school, etc. The foundationalist conception of knowledge further leads to superior and inferior forms of knowledge or disciplines, e.g. theoretical knowledge is superior to practical knowledge. That music at schools reflects a lower status than for example history, mathematics and other academic subjects, is a direct consequence of foundationalism. The Western philosophy is strongly influenced by foundationalism, as Flew poignantly observed: *"the whole later development of Western philosophy can be regarded as a series of extended footnotes to Plato"* [10]

Foundationalist theory divides knowledge into disciplines each with its own respective methodology, e.g. physics, mathematics, music, psychology, etc.. These disciplines and the boundaries between them have led to the fragmentation of knowledge and learning. To quote Hirst:

> *"The disciplines each make their own limited abstractions from the complexities of practice. They tackle no common problems of any kind and none of them is adequate to the proper determining of principles for educational practice.*[11]*."*

A further defect of foundationalist theory, is the tendency to construe matters in a dualistic way, e.g. the duality of appearance and reality, the duality between practice and theory and between necessary truths and contingent truths. Foundationalism, thus, states certainties which are regarded as truths and basis for learning to ensue. The learner is *"the barbarian outside the gates of civilization"* who needs to be initiated into *"the citadel of civilization"*[12].

Despite the good in Foundationalism, it has led to many grave problems in the world, e.g.

---

[9]op. cit., p. 40.

[10]A. Flew, An Introduction to Western Philosophy, Thames and Hudson, London, 1971, p. 41.

[11]P.H. Hirst, Educational Theory and its Foundational Disciplines, Routledge & Kegan Paul, London, 1983, p. 6.

[12]R.S. Peters, 'Education as Initiation,' in D. Margetson, 'Understanding Problem-based learning', Educational Philosophy and Theory, Vol. 25, no. 1, 1983, pp. 40-55.

pollution, overpopulation, discrimination against race, "apartheid" policies and the threat of nuclear war. Don Margetson rightfully asks: *"Where is the citadel of civilization in these?"* Foundationalist theory advanced the idea of the Western culture and its people being superior to non-Western culture and people. In South Africa the historical bias to Western/European arts and culture has impacted decisively on the development and provision of arts and culture education. This has led to unequal resourcing between races, social division and lack of accessibility to knowledge, skills and career opportunities to the majority of South Africans. All over the world, including S.A., non-Western cultures consistently and deliberately were forced to adapt to the so-called 'better technology' of the West. Ironically, the high technology of the West was often developed at the expense of the environment and with little regard to the indigenous inhabitants and their culture.

1.2 THE PROBLEM-FOCUSED ALTERNATIVE

With problem-focused learning problems do not emerge within disciplines, but disciplines coalesce around problems. Popper encapsulates this:

> *"We are not students of some subject-matter but students of problems"*[13]

In problem-focused learning students start with a problem. These problems should be based on reality (unstructured problems or genuine problems) and not on hypothetical (mocked or simulated) problems reduced to exercises. Academic disciplines with their conceptual boundaries in approaching problems lead to endemic fragmentation in academic work. Problem-focused learning radically rejects these conceptual boundaries amongst disciplines in favour of an integrated or interdisciplinary approach to learning. To quote Quine:

> *"Boundaries between disciplines are useful for deans and librarians, but let us not overestimate them - the boundaries*[14]*."*

Walker and Everts reiterate:

> *"if there is any use for the term 'discipline', it is to refer to clusters of theories in relatively close competition with each other over the solution of a set of common*

---

[13]K.R. Popper, Conjectures and Refutations, Routledge & Kegan Paul, London, 1963, p. 67.

[14]W.V. Quine, 'Necessary Truths,' in The Ways of Paradox and Other Essays, Random House, New York, 1966, p. 56.

problems"[15]

Problem-focused learning, however, should not be trivialised only to pragmatism or pragmatic reasons for learning. It is much more than that. The learner is *"regarded as a participant in a fragile form of life whose civilization can be threatened not only by the comparatively unlearned"*[16]. Problem-focused learning questions the emphasis on prior knowledge as a tool to solve problems and is a coherent or holistic context of learning. While the foundationalists view the person as a disengaged person, a separate atomistic entity with utilitarian reasonings of the world, the problem-focused conception views the person as being engaged in his world. Being-in-the-world means that one is intentionally, constitutively, coherently with this world (and its problems) and not a free, floating, independent, objective, rational entity in this world. It further suggests that people cannot only reason about the world in an instrumental or objective way, since this presupposes separateness. Margetson writes:

> ..."*persons are not atomistic entities, but gain their identities in large part as interacting members of more or less coherent communities; we are 'social, participative beings'"*[17]

Problem-focused learning avoids, on the one extreme, *'teacher- centredness'* and on the other extreme, *'learner-centredness'*. These two extremes according to Taylor[18], concentrate on one aspect of reality at the expense of the other. Problem-focused learning views the teacher or tutor as the facilitator of learning where both teacher and learner cooperate in an educational enterprise, even though their levels of knowledge may differ. Margetson writes:

> *"The role of the tutor, often called the facilitator is to help students to learn in contrast to presenting subject matter for learning."*[19]

---

[15]J. Walker and C. Evers, 'Towards a Materialist Pragmatist Philosophy of Education,' Educational Research and Perspectives II, 1, 1984, p. 30.

[16]D. Margetson, 'Understanding Problem-based Learning,' Educational Philosophy and Theory, Vol. 25, no. 1, 1993, p. 40.

[17]op. cit., p. 50.

[18]op. cit., p. 51.

[19]op. cit., p. 41.

1.3 EDUCATIONAL AND PSYCHOLOGICAL SUPPORT FOR A PROBLEM-SOLVING APPROACH.

Further support for the '*Mandala*' creative problem-solving approach is supported by eminent philosophers such as John Dewey[20] and psychologists of education such as Jerome S Bruner[21] and Jean Piaget[22]. I shall encapsulate each writer's views on creative problem-solving.

1.3.1. JOHN DEWEY

John Dewey believes that education is growth, i.e. *"the cumulative movement of action toward a later result"*[23]. For Dewey, thinking is method; *"thinking is the method of intelligent learning, of learning that employs and rewards mind"*[24].

He explains:

> *"We speak, legitimately enough, about the method of thinking, but the important thing to bear in mind about the method is that thinking is method, the method of intelligent experience in the course which it takes."*[25]

Elizabeth Oehrle[26] gives a summary of Dewey's problem-solving method and which she compares with S.J Parnes's problem-solving method (see Table 3, Appendix A).

Dewey's problem-solving method is a subjective action approach to learning. He uses action

---

[20]J. Dewey, Democracy and Education, McMillan, 1960.

[21]J.S. Bruner, Towards a Theory of Instruction, Cambridge, Massachusetts, Belknap Press of Harvard University Press, 1967.

[22]J. Piaget, Science of Education and the Psychology of the Child, trans. Derek Coltman, New York: Penguin Books, 1976.

[23]J. Dewey, op. cit., p. 41.

[24]op. cit., p. 153.

[25]ibid.

[26]E. Oehrle, A Case for Creativity in Elementary Music Education, thesis submitted in partial fulfilment of the Ph.D.-degree, University of Natal, Durban, 1983, p. 432.

verbs such as; *explore*, *do*, *test* and *apply* to qualify his approach. All action-learning is building blocks for experience. In essence Dewey postulates exposing the learner to real-life learning experiences while teaching and learning focus on knowing 'how to' ('know how') solve problems.

Parnes problem-solving method on the other hand, is in essence phenomenological, i.e. he sees a problem as an object outside the perceivers experience. The perceiver dissects knowledge empirically in order to get to theoretical solutions. Parnes assumes that intelligence equates the contemplation of propositions and is exhausted in this contemplation. Problem-solving focuses on knowing 'that' ('knowledge-that').

The 'Mandala' approach to music endorses Dewey's problem-solving method and which integrates discipline with freedom. Discipline and freedom are two sides of the same coin. Discipline does not mean the mechanical drilling and intentional injections of knowledge into the minds of children, but rather the positive constructive mental power to create something of value (product sense). The aim of education should not be the indoctrination of the mind (habits of thinking), but rather self-disciplined action.

Self-discipline as outcome or achievement of education is closely linked to freedom. Freedom is the intellectual power to act independently of external sources, i.e. to make independent judgements, decisions, analyses, interpretations, etc. - in short creative and critical thinking. Music-making integrates both external and internal discipline. External discipline is the skills to manage the elements of music, while internal discipline relies on the use of the imagination and vision to discover.Practising technical skills e.g. scales, etc. should be thoughtful and intentional actions within the context of performance, composition and analyses.

1.3.2. JEROME S. BRUNER

Bruner is concerned about intrinsic motives, i.e. curiosity, competency, identification and reciprocity for learning and problem-solving. He believes that the will to learn is an intrinsic one. He maintains that *"since learning and problem-solving depend upon the exploration of alternatives, instruction must facilitate and regulate the exploration of alternatives on the part of the learner."*[27] The exploration of alternatives requires, according to Bruner, *"activation,*

[27]J.S. Bruner, Towards a Theory of Instruction, Cambridge, Massachusetts, Belknap Press of Harvard University Press, 1967, p. 43.

maintanance, and direction."[28] Bruner writes:

> *The major condition for activating exploration of alternatives in a task is the presence of some optimal level of uncertainty. Curiosity, it has been persuasively argued, is a response to uncertainty and ambiguity. A cut-and-dried routine task provokes little exploration; one that is too uncertain may arouse confusion and anxiety, with the effect of reducing exploration."*[29]

Bruner implies that when a learning programme is structured, enough room should be left for the activation of the child's curiosity and exploration drives within the context of problem-solving. Curiosity within the 'Mandala' approach is a necessary condition for creative-action-learning. In the preparation and planning stage the teacher will orientate the child to the musical action objectives or outcomes.

By posing divergent questioning,analysing and synthesizing music action-learning, allowing children to experiment with objects, problem-finding, getting involved with sound activities and the development of fluency, flexibility and other creative skills are all ways of activating curiosity within children. Bruner's second intrinsic motive, 'the ... drive to achieve competence',[30] is embedded in a sense of achievement or accomplishment. Bruner argues that external factors such as cultural influences affect our sense of achievement. Examples of such influence include individual responsibility, initiative, independence in decision and action and perfectibility of the self[31]

The 'Mandala' approach places value in the product or outcome of music making. Within the product of music making resides a sense of accomplishment which is influenced by the cultural context. By performing, composing/improvisation or analysing music, pupils' achievements are in fact also achievements of the self.

Bruner's third intrinsic motive, i.e. the aspiration to emulate a model or to identify with someone

---

[28]op. cit., p. 43.

[29]ibid.

[30]op. cit., p. 117.

[31]op. cit., p. 43.

is of particular interest to the music teacher. This view is echoed by David Elliott when he propounds that the teacher should be the model of the music practice sought after. In order to induct pupils into a music practice the teacher should be an expert of that practice or music culture. Exposing pupils to authentic music making in context will inevitably lead to knowing (know-how) **in** music.

Bruner's fourth intrinsic motive for learning is social reciprocity and an important skill for problem-solving. He emphasizes the need amongst people to operate jointly, reach out to others, striving collectively for objectives and learn together. He criticizes educational practices which fragments people into 'teachers', 'pupils' and 'experts' and ignoring 'the community of learners' [32]

Bruner concludes that the intrinsic motives(skills) which guide our will to learn should be applied to problem-solving in the following ways:

a) The subject matter:
   Here the pupil learns to argue, conjecture, etc. while learning the subject or discipline.

b) Thought in the classroom:
   This can be developed through problem-finding, i.e. a predisposition or be skillful in inventing or finding a problem as part of creative thinking and the creative process.

c) Training teachers in problem-solving:
   Teachers should be trained in finding or inventing problems in order to combat the notion of "telling-out-of-context-of-learning" [33]

d) The personalization of knowledge:
   By this he means connecting knowledge/subject matter with the child's feelings, fantasies and values. In order to do this the child should **experience** knowledge, making it part of their feelings.

At (d) Bruner is particularly interested in the child's understanding and discovery of his own feelings during experiential activities. However, from this one can deduce that by connecting a child's learning with real-life action-learning will ostensibly contributes to knowing **in** action. Knowledge-in-action internalized as part of the self or totality of personality becomes knowing or know-how **in** action.

---

[32] op. cit., p.126.

[33] op. cit., pp.159-160.

e) Evaluation:

The stimulation of learning in problem-solving should allow for:

i) stimulation with freedom from stress,

ii) playfulness in learning and

iii) freedom from external drive and anxiety.

Evaluation should be applied as a means of constructing a curriculum for the learner, i.e. in the choice of learner material, teaching approach and setting tasks for pupils.

Bruner criticizes present education systems which emphasizes **telling** (knowledge) out of context rather than **showing** (action) in context. He bases his theories of problem-solving on the difficulties experienced by pupils as a result of the *'telling- out-of-context-of-action'* instruction in schools. Bruner, thus, strongly supports that education should foster problem-solving and that children should be exposed to problem- solving as a form of learning and knowing. Through problem-finding critical thinking could be stimulated within the classroom (one of the basic problems in education today).

1.3.3 JEAN PIAGET

Problem-solving for Piaget should be viewed within the context of the feeble teaching profession during his time. Piaget is critical of teachers who see themselves as "transmitters of a kind of knowledge" which is within everyone's grasp.[34]

Education is not conformity to a set programme, but rather problem-solving which embraces flexibility, active methods, initiative, discovery, research and an experimental attitude of mind. Piaget believes that the training of inventive and critical minds should be the outcomes of teaching and education, not conforming generations into the molds of traditional learning. Education as an active discovery of reality should substitute drilling (simple repetition) in teaching. Intelligence for Piaget means understanding and invention which can only be developed through active learning. Thus, intelligence no longer means only the understanding of knowledge, but that this understanding is subordinate to invention. Piaget explains:

> *"The essential functions of intelligence consist in understanding and in inventing, in other words, in building up structures by structuring reality. ... Whereas the*

[34]J. Piaget, Science of Education and the Psychology of the Child, trans. Derek Coltman, New York: Penguin Books, 1976, p. 11.

> *older theories of intelligence emphasized understanding and looked upon invention as the mere discovery of already existing realities, more recent theories ... subordinate understanding to invention, looking upon the latter as the expression of a continual construction process building up structured wholes"*[35]

Thus, Piaget propounds that in order to be inventive or creative, pupils need internalized knowledge discovered through experimentation, i.e. active-learning. Active-learning replaces the old mundane approach whereby the teacher imposes knowledge upon passive and receptive pupils i.e. the knowledge-copy and simple associative learning. Active-learning as a means of solving problems encourages an experimental attitude of mind, abstract reflection and spontaneity, all necessary skills for creative thinking. In short, spontaneous activity is inseparable from thinking during active-learning. The operative word for active-learning is interest. Learning should appeal to pupils so that they indulge in spontaneously work or activities. Teachers should not treat children as adults, but rather adapt learning to the mental developmental stages of children. Active-learning is based on intelligence according to Piaget. Intelligence he defines as a process of constructive adaptation between assimilation and accommodation processes. Intelligence begins by being practical and through a continuous process of construction gradually are transformed into thought. The function of intelligence is understanding and inventing (two sides of the same coin) with the former subordinate to the latter.

Piaget further asserts that if society desires creative people, i.e. people capable of inventive thought, an active-learning method of education is needed. Such an education I shall refer to as 'creative-action-learning'.

Piaget propounded that teaching conceived as action-learning is more professional[36], problem-solving[37] and competitive with other sciences, than teaching based on knowledge. He writes:

> *"... knowledge is derived from action...[i.e.] ...not in the sense of simple associative responses but in a much deeper sense of the assimilation of reality into the necessary coordination of action. ...To know an object is to act upon it*

---

[35]op. cit., pp. 27-28.

[36]op. cit., p. 11.

[37]op. cit., p. 26.

and to transform it".[38]

To know is therefore to assimilate reality into structures of transformation, and these are the structures that intelligence constructs as a direct extension of our actions. In planning for education, Piaget proposes that educationists should take cognisance of the developmental mental stages of children.

Relevant to the '*Mandala*' approach to music is Elliott's view of music education as progressive musical problem-solving. Pupils should be confronted with genuine musical problems which pose a challenge and need to be solved. A musical challenge is an authentic and engaging musical project to be performed i.e. improvised, composed, arranged, or conducted. He describes progressive problem-solving thus: '*[it] requires students to take more and more musical details into account during successive encounters with familiar and unfamiliar challenges*'[39].

Pupils' surplus of attention could be utilized to:

(i) issues unrelated to musicianship

(ii) musical problem-reduction, or

(iii) musical problem-solving and problem-finding.

Elliott explains problem-finding and problem-reduction:

(a) Problem-finding:

Pupils need to be instructed how to locate a musical problem as opposed to an already defined existing musical problem. Finding musical problems depend on understanding and knowing a musical-practice.

(b) Problem-reduction:

This implies reducing a problem, e.g. breath control management in order to sing difficult music pieces better.

Listening should be directed toward musical problem-finding and problem-solving.

Elliott believes proficient and expert listeners for the future could only be educated through the education of competent, proficient, and artistic music makers in the present.

---

[38]op. cit., pp. 28-29.

[39]D.A. Elliott, Music Matters: Towards a New Philosophy of Music, Oxford University Press, 1995, p. 73.

1.4 THE *MANDALA* CONTEXT OF PROBLEM-FOCUSED LEARNING

Music education as Aesthetic education is based on foundational principles laid down by Leonard and House[40]. These foundational principles reflect a foundationalist conception of knowledge, which stems directly from Plato's Theory of Forms, Kant's Ethics and Conduct and Descartes' *Cognito ergo sum* (I think therefore I am). Music as Aesthetic education contemplates artworks (pieces of music) as objects which are to be appreciated and enjoyed objectively and only for their aesthetic qualities. Aesthetic qualities such as the elements of music, e.g. rhythm, harmony, timbre, etc. are being taught as separate atomic entities through subject-based learning, i.e. the teacher imparts knowledge about these elements. Pupils are expected to learn through the transferal of knowledge. Their only exposure to experiencing music, is through mundane repetitive musical exercises, already worked out by the music teacher or music textbook. Exercises in textbooks reflect music as a fragmented discipline often disengaged from other subject disciplines or real life musical experiences. The only real experiences of music are centred on passive listening for these aesthetic qualities in mostly Western Classical music or music of the great composers, i.e. Bach, Beethoven, etc.

The obsession with the dissection of musical pieces as a means of gaining knowledge, is characteristic of foundationalist conception of learning, which defines musical action in terms of musical knowledge. Music as Aesthetic education, as practised in South African schools, follows the subject-based context of learning explained earlier. Our dilemma in music education, conceived as aesthetic education, is the vague idealistic themes which it apparently embraces such as: music promotes aesthetic awareness, communicates the ineffable aspects of life, or imparts our cultural heritage[41]. In this age of accountability and the present economic and educational climate of S.A., we need tangible and observable results to justify and judge our successes of music instruction and music learning objectives. Without these results the justification of music in schools will forever hinge on sublime or metaphysical ideals which adjoin intangibility and unmeasurability.

The praxial, like the aesthetic philosophy, also emphasizes knowledge (procedural) as prerequisite for problem-solving. Informal, formal, etc. musical knowledge constitute contextual

---

[40]C. Leonard and R. House, Foundations and Principles of Music Education, Mcgraw-Hill Book Company, 1959, p. 98.

[41]T.A. Regelski, 'Action learning: The Practical Approach for Music Education,' Music Educators Journal, February 1983, p. 50.

knowing in music or what Elliott refers to as *musicianship*.

The '*Mandala*' approach to music on the contrary, is a problem-focused approach to music. The music teacher is the facilitator of the never ending musical discovery process, while the pupil co-operates (see Diagram 2, Appendix B) with a problem-solving attitude.

Both the teacher and pupil are interdependent of each other, although they differ in levels of knowledge. Music subject-matter (theory, harmony, history etc.) should coalesce around musical problems. Pupils are encouraged to think critically as part of learning and should be able to discover solutions (knowledge) for themselves, instead of being told solutions by the teacher.

Critical thinking as part of problem-solving means 'reflective thought' in doing things and in 'thinking about the things we are doing'[42]. This type of thinking allows pupils to accurately explain complex concepts in words, symbols or graphics. Critical thinking develops abstract thinking, i.e. passage from concrete to abstract thinking, assures the link between manifest and hidden content as well as to develop concept maps or notional frameworks.

2. THE CREATIVE THINKING PROCESS

The creative thinking envisaged (see Diagram 3, Appendix B) is a modified version of Webster[43] and Mayesky's[44] models, also taking account of David Elliott's 'praxial' philosophy of music education. The praxial philosophy places *musicianship* at the centre of the music curriculum. The aesthetic philosophy places *aesthetic experiences* at the centre of the music curriculum. However, the '*Mandala*' approach views creative thinking (creativity) to be at the centre of the music curriculum. Active or reflective listening as part of analysis interacts with performance and improvisation to constitute creative thinking or the integrated knowing **in**

---

[42]D.J. Elliott, Music Matters: Towards a New Philosophy of Music, Oxford University Press, 1995.

[43]P.R. Webster, 'Creativity as Creative Thinking,' Music Educators Journal, Vol. 76, no. 9, May 1990, pp. 22-28.

[44]M. Mayesky, et.al., Creative Activities for Young Children, (Third Edition), Delmar Publishers Inc., 1985, p. 3.

music. Thus, listening is not passively perceiving qualities in works of art (as postulated by aesthetic philosophy) but rather '*constructing*' (cognitive sense) auditory patterns and events. Analysis is not about music as aestheticians postulate, but is conceived interdependently with performing, improvisation and as reflective action ('reflecting-in-action').

2.1 THE '*MANDALA*' CREATIVE THINKING MODEL. (M.C.T-model) [Diagram 3, Appendix B]

Creative thinking within the context of the '*Mandala*' problem-focused approach, places the emphasis on the processes and products of creativity, and how these contribute to music learning and teaching. Creative thinking within the '*Mandala*' approach differs from past approaches in that creativity (creative thinking) is not only viewed as a isolated thinking or cognitive process, but rather a 'thinking-in-action' (thinking and doing) process. By merging into one concept the interdependence between thinking and action, is compatible with Jung's view of the '*self*', i.e. a product of both the unconscious and conscious life. If the '*self*' is holistic (both unconscious and conscious) as Jung postulates, creative thinking which is the product of the '*self*', also involves unconscious and conscious enabling skills or 'knowing'. Creative thinking means not to think **about** music, e.g. when listening and talking about a musical performance or when recalling conceptual understandings of music, but to think **in** music, i.e. performing, improvising and composing music. Creative thinking within the context of the '*Mandala*' approach to music means inter alia to:

a) 'think' like a composer, performer, conductor, arranger, and improvisor, i.e. make choices, evaluate choices, and work hard.
b) think in sound and wrestle with it,
c) making artistic decisions about sounds,
d) transforming thoughts and ideas into musical ideas and thoughts,
e) learn by discovery (problem-solving), by thought or by intuition,
f) gain intellectual/divergent thinking abilities, e.g. fluency, flexibility and elaboration, while acquiring knowledge.
g) be concerned with *'how'* and *'why'* we approach music in a particular way, so that the *'how'* and *'why'* make music more meaningful, than the *'what'*.
h) think in a multifaceted or problem-solving (including problem-finding and problem-reduction) way about the creative process.

3. CREATIVE-ACTION-LEARNING

Steve Biko writes:

> *"Tourists always watch with amazement the synchrony of music and action as Africans working at a roadside use their picks and shovels with well-timed precision to the accompaniment of a background song"* [45]

The need to act, create and learn through music is fundamental to man-centred African culture and the key to what I consider 'creative-action-learning'. Creative-action-learning should, however, be seen within a problem-solving context (Dewey, etc.) rather than Biko's proposed situation experiencing approach to problems.

Another justification for creative-action-learning is implied by Piaget when he writes:

> *" ...knowledge is derived from action not, in the sense of simple associative responses, but in a much deeper sense of the assimilation of reality into the necessary and general coordination of action. To know an object is to act upon it and to transform it, in order to grasp the mechanisms of that transformation as they function in connection with the transformative actions themselves. ... and these are the structures that intelligence constructs as a direct extension of our actions ..."* [46]

Piaget propounds that the development of intelligence as outcome of learning is a constructive process of reality which resides in experience /action and creative thinking /transformative thinking. In the 'Mandala' context this means that knowledge discovered as a product of active and creative learning (creative-action-learning) will lead to know-how or knowing in action.

3.1 MUSIC EDUCATION THROUGH CREATIVE ACTIVITIES

Presently the role of creativity or creative activities in the music curriculum is a controversial one. What is creativity in music? Creativity as an activity in music classes is often mis-interpreted by both music educators and pupils. It ranges from chaos in the classes to more 'disciplined' activities leading to boredom or lethargy. Teachers tend to avoid creative activities,

---

[45] S. Biko, I Write What I Like, London: Penguin, 1978, pp. 54-61 and 112.

[46] J.Piaget, Science of Education and the Psychology of the Child, trans. Derek Coltman, New York: Penguin Books, 1976, pp.28-29.

because they often lead to apparent infringement of general discipline in class, are time-consuming, lack clear educational objectives and structure, primarily because teachers lack the confidence to implement these vital and important activities. Others who do implement these activities, do it half-heartedly, since both teachers and pupils view creative activities as 'amusement' activities, an addendum to the formal music curriculum which further fragments music education. The following questions emanate from this confusion:

a) are creative activities the means by which we educate students?

b) are musically creative students the end result of teaching creative activities?

c) does creative functioning in students develop after acquiring the basic musical skills and knowledge? or

d) are creative activities the way we introduce students to these basic skills and knowledge.[47]

The 'activities' approach (see Diagram 4, Appendix B)[48] seems problematic, since this approach often means a 'unit' studied for a period of time, which is never integrated with other musical experiences, i.e. activities are treated as self-sufficient ends. The '*Mandala*' approach as a means of creative learning in music, is a structured music, 'action learning' approach (see Diagram 5, Appendix B)[49] and is a substitute for the 'activities' approach. The 'action learning' approach takes the creative 'spiral approach' (creative activities are intermixed on a regular basis with other kinds of related experiences, according to content or musical process) one step further. Action-learning connects students' learning (composition, performance and analysis) with pupils' potential involvement outside of school or after graduation. Action-learning involves connecting learning in the classroom with the personal ideas, experiences and feelings of students. Thomas A. Regelski[50] writes:

> *"[The teacher, therefore,]... organizes a problem either modeled on some real-life experience or in some way related to the student's lives.*

Music *'action learning'*, however, should be structured according to clearly defined creative

---

[47]J. Kratus, 'Structuring the Music Curriculum for Creative Learning,' Music Educators Journal, May 1990, pp. 33-37.

[48]T.A. Regelski, 'A Sound Approach to Sound Composition,' Music Educators Journal, May 1986, pp. 41-45.

[49]ibid.

[50]ibid.

musical goals and objectives and focus on problem-solving, problem-finding and problem-reduction. The active learning frameworks of John Kratus[51] and Hollis Thoms[52], are relevant to a discussion on structured *'action learning'*. Lest this be misunderstood, their creative frameworks can be modified to accommodate *'action learning'*. Kratus based structured creative learning on the formulation of long-term goals and short-term objectives since creative learning is a complex learning process. Kratus believes in order to deal successfully with complex learning, the following need to be done:

1. analyze the component parts of the complex behaviour,
2. focus the students' development on the components,
3. enable the student to work toward mastery of the components within the context of the whole[53].

While Elliott denounces the explore-discovery process of creativity, the *'Mandala'* approach envisages creativity to be compatible with action-learning to constitute creative-action-learning. Creative-action-learning within the context of the *'Mandala'* approach coalesces around the creative person, process and product in an interactive way to constitute knowing **in** music. Knowing or critical thinking in music is a prerequisite for musical problem-solving, understanding and selfgrowth. The aesthetic approach deems something creative with reference to a special process. The praxial philosophy emphasises a tangible product as criterion for deeming something creative. The *'Mandala'* approach proposes that creative thinking is a product of the interaction between the creative person, process and product also taking into consideration the enabling conditions of creativity or the context of creativity. Elliott's views on action-learning is also relevant to the '*Mandala*' approach. He writes: *"To act is not merely to move or exhibit behaviour".*[54] To act is to move deliberately, with control to achieve *intended* ends. Saul Ross[55] asserts:

---

[51]ibid.

[52]H. Thoms, 'Encouraging the Musical Imagination through Composition,' ' Music Educators Journal, January 1987, pp. 27-30.

[53]J. Kratus, 'Structuring the Music Curriculum for Creative Learning,' Music Educators Journal, May 1990, pp.33-37.

[54]D.J. Elliott, Music Matters: Towards a New Philosophy of Music, Oxford University Press, 1995, p. 50.

[55]S. Ross, 'Epistemology, Intentional Action and Physical Education,' Philosophy of Sport and Physical Activity, (ed.) P.J. Galasso, Toronto: Canadian Scholars' Press, 1988, p. 124.

> *" the characteristic of personal action is that it is the realization of intention. Action is informed and determined by a conscious purpose".*

In a musical performing sense the following is suggested by Elliott:

(a) Performing is an intentional and purposeful act within a definite context.

(b) A musician acts by selecting or choosing a particular situation or condition with an intention in mind. His actions include deploying, directing and adjusting sounds and judging whether intended changes were successful in relation to his musical intentions, standards and traditions of musical practice.

(c) Deploying, directing adjusting and judging are forms of thinking and knowing (know-how).

(d) The core knowledge of music education is action-based, i.e. knowledge [knowing] - how to think musically '*in*' the actions of performing music and listening. Musical knowledge should never become ends in isolation, but in the context of musical sounds and actions of music making. Musical knowledge is, thus, an adjunct or accessory to music making and listening. Elliott criticizes the aesthetic listening scores, maps or charts of musical structure which he believes capture only part (one dimension) of what there is to listen for in musical works.

Thus musical performing as action learning involves:

1. a musician or musicians.
2. knowing that determines and informs the intentions of musicians, including knowledge of relevant standards and traditions of musical practice.
3. sounds that musicians make and act upon in relation to their musical knowing.
4. instruments (including voices) of their work.
5. actions of performing (and/or improvising).
6. a performance of a composition or an improvisation (musical product-in-view).
7. the context (physical, cultural and social) in which musicians interpret, perform or improvise musical works.

Elliott's views on action-learning highlights the creative person (musician) and the musical product (performance or composition), but fails to explain the creative process which connects the creative person with the product. Creative-action-learning acknowledges the creative process which links the creative person and the product interactively. Creative-action-learning

describes the processes and creative skills needed to transform knowledge into knowing, i.e. knowledge-that into knowledge-how. Creative-action-learning is the intentional interaction between the creative person, process and product within the context of music practices.

The aim of creative-action-learning is to develop the imagination as part of creative thinking, the musical self and to create tangible creative products per se. The hype is used in teaching to stimulate interest and the imagination as part of action-learning. Pupils should be encouraged to employ their creative thinking skills in order to solve musical challenges or problems.

4. HOLISTIC CULTURAL PHENOMENON

Steve Biko[56] argues that 'Holism' is an African cultural concept since African tradition is a community-based and man-centred society. The African concept of 'Ubuntu' signifies holism, being humane and refers to the interdependance/communalism of people sharing together as parts of society (communities) rather than individuals. In African culture the totality of personality is a holistic conception of man which integrates thinking and feeling, the rational and non-rational, and the natural and supernatural. Music is an important communication vehicle of Africans which is regulated integrated with work, pleasures, battles, games, suffering, etc.

Biko writes:

> *"Rhythms and music are not perceived by Africans as luxuries but part and parcel of our way of communications"* [57]

The above-mentioned quotation suggests an integrated or holistic interpretation of music education in South Africa.

Another trend which signifies holism or integration is the transformation of education in South Africa from an "Apartheid" or segregated education system to an integrated Outcomes-based education system. "Apartheid" education fragmented education along class and racial lines [58]. The South African society as outcome of "Apartheids" education became structured according

---

[56] S. Biko, I Write What I Like, London: Penguin, 1978, pp 54-61.

[57] P. Christie, The Right to Learn, Raven Press, 1985, pp. 29-57.

[58] ibid.

to racial (colour) and class inequalities. "Apartheid" education denied non-whites access to opportunities normally reserved for the white minority, further entrenching inequalities amongst races and classes. Blacks and people of colour consequently suffered in terms of gaining the necessary skills, information and experience to develop themselves economically and the economy of this country. Christian National Education and Bantu Education also discouraged people to think analytically, critically and creatively.

The Sanskrit word '*Mandala*'[59] is an Indian term which means a *'magic circle'*. In Hinduism and Buddhism they signify instruments of contemplation during religious rituals which in turn symbolize wholeness and unity. John Strong[60] writes:

> *"The word Mandala literally means 'circle'. In Vajrayana Buddhism it refers more specifically to a directionally organized diagram of divinities (usually Buddhas) that is at once a representation, macrocosmically, of the whole of reality and, microcosmically, of the mystical physiology of the mediator. The identity of the Buddhas in a Mandala varies from text to text."*

The *yantra*[61] '*Mandala*' (see Diagram 6, Appendix B) is an ancient symbol used by the Indians in rituals as an instrument of contemplation. Carl Gustav Jung who often was called the master of the underworld, distinguishes between the unconscious (symbolized by water) and conscious. In his Analytic Theory, Jung breathed new life into the ancient '*Mandala*' symbol to depict the '*self*'- the centre of personality[62], which operates both conscious and unconscious. The '*self*', according to Jung, is an archetype striving for total unity and which is expressed through various symbols, the main one being the *'Mandala'* or magic circle. Jung's life revolved around the search for the centre, the '*self*', the essence of which is going to allow the personality as a whole to blossom forth. The symbol for the totality of the person is the '*Mandala*' and Jung painted many of these during his life. They were '*his window onto eternity*'.

---

[59]C.G. Jung, The Collected Works of C.G. Jung. The Archetypes and the Collective Unconscious, Second Edition, Routledge & Kegan Paul, London, 1959, pp. 355-384.

[60]J.S. Strong, The Experience of Buddhism, Belmont, Calis, Wadsworth, 1995, pp. 206-207.

[61]ibid.

[62]C.G. Jung, The Archetypes and the Collective Unconscious, Second Edition, Routledge & Kegan Paul, London, 1959.

Jung believed that when the psyche is under enormous stress, (e.g. in times of crises) and when the individual is being pulled apart by the opposites, the dreamlife compensates with the powerful expression of some symbol of wholeness, a '*Mandala*'. The '*Mandala*' symbol in Orient religion and Christianity represents a striving for wholeness and unity or oneness through the God-image. The '*Mandala*' symbol also represents equilibrium and stability. For Jung, there is a continuous and often creative development within us, the search for wholeness and completion, and the yearning for rebirth. Jung believed that after the age of the 'Fish' (symbol for conflicts and lack of awareness) the new age of the conscious being would dawn - the age of Aquarius, the 'Waterman', the symbol of the '*self*'. Jung knew both worlds; the conscious and unconscious, outer and the inner, visible and invisible.

The 'praxial' philosophy of music is based on music as an act of the conscious '*self*', which leads to selfgrowth, selfknowledge and enjoyment or flow. The '*Mandala*' approach to music places this '*self*' (both conscious and unconscious) as a creative symbol for unity and totality at the centre of music from where our musical performance, improvisation, composition and analysis in a multicultural and holistic manner, will blossom forth. In essence the '*Mandala*' approach is a practical music teaching approach developed from numerous sources of literature and theory on music and education specially adapted to cater for South African music teaching.

Jane Atkinson[63] writes:

> *"The humanistic view of education is a holistic approach whereby we are educating a whole person through a whole education. ...this makes education more meaningful. The ideal is to develop initiative, self-reliance, spontaneity, resourcefulness, kindness, creativity, courage, responsibility and joy in the student."*[64]

Jane Atkinson made a comparison between subject-centred and human-centred paradigms (see Table 4, Appendix A).

---

[63]J. Atkinson, 'Towards a Theory and Philosophy in Music Education,' Music Education: Facing the Future, Proceedings of the 19th World Conference of the International Society for Music Education, (ed.) Jack P.B. Dobbs, Helsinki, Finland, 1990, pp.39-42.

[64]ibid.

With regard to the new paradigm she writes:

> *"The new paradigm suggests that education will **'turn a life on'** and be therefore meaningful if there is a continuum of knowledge, rather than teaching in parts through individual subjects with no thread running through them. In regards to music, it does not necessarily need to be taught only as an individual subject but can be integrated into all subjects at all grade levels, e.g. into History, Geography, Languages, Prose, Poetry, Drama, Writing, the Sciences, Mathematics, art and Physical Education."*[65]

Elliott supports a holistic approach to music. He criticizes music as aesthetic education programmes which encourage a practical split between listening-based general music programmes and performance programmes. Listening-centred general music programmes he claims negate the artistic, performative, and musical-social nature of musical works, while developing the so-called psychical distance.

> *"Perhaps we should say, then, that the most important long-term goal of the music education profession is not only music for every child, but more accurately, **'musical'** teachers for children everywhere"*[66].

Musicianship and educatorship are interdependent. Excellent teaching also involves educatorship which include formal, informal, impressionistic and supervisory educational knowledge.

Music in the primary school, has traditionally been associated with the music specialist (ranging from the performer teacher to one with good music qualifications). In South African schools, the music component is the exclusive domain of the music specialist, only to be taught to the musical few. The class teacher teaches all other subjects except music which he/she regards as the specialized field of the music specialist. Presently music at primary school level is being regarded as an *'elitist subject'*, taught at a big tax expense, by the music specialist for the deci-

---

[65]ibid.

[66]D.J. Elliott, Music Matters: Towards a New Philosophy of Music, Oxford University Press, 1995, p. 253.

mal few. The specialized connotation of music, has led to a disenfranchisement of music from the rest of the curriculum, making it presently difficult to integrate as part of the school curriculum. The paradox, however, is that at the present moment, because of rationalisation in the teaching fraternity, democratic political forces and dispensation, restructuring of education in South Africa, the role of music in schools is under threat of being marginalised, to put it mildly.

The present scenario whereby all teachers will have to uphold a 1:40 teacher-student ratio demands a need for a new approach to music education. However, with less state money available to education and the rationalization process in progress, the axing of the music specialist has become inevitable and commonplace. The latter may proof counterproductive, detrimental and even lethal for any future music/arts education reform.

Transformation in South African education deems it necessary to integrate music with the rest of the art family (interdisciplinary integration) to constitute the Arts and Culture learning area of outcomes-based education. Arts and Culture in South Africa should be viewed within the context as stipulated in the Reconstruction and Development Programme:

> *"Arts and Culture are a crucial component of developing our human resources. This will help in unlocking the creativity of our people, allowing for cultural diversity within the process of developing a unifying national culture, rediscovering our historical heritage, and assuring that adequate resources are allocated"* [67]

The element of redress for past inequities in Arts Education and Training, is emphasized by the R.D.P. and outcomes-based education. An advantage of an integrated arts education approach is the opportunities presented for learners to become skilled in the various art forms and cultural processes leading to an enriched and invigorated curriculum.

Another advantage is the implementation of an arts across the curriculum approach, i.e. learning **in** the arts and learning **through** the arts. The specific outcomes[68] for the Arts and

---

[67] African National Congress, Reconstruction and Development Programme, Umanyano Publishers, Johannesburg, 1994, p. 9.

[68] Department of Education, Discussion Document Curriculum 2005: Specific Outcomes, Assessment Criteria, Range Statements, Grades 1 to 9, Department of Education (South Africa), April 1997.

Culture learning area include that learners will be able to:

1) Apply knowledge, techniques and skills to create and be critically involved in arts and culture processes and products.
2) Use the creative processes of arts and culture to develop and apply social and interactive skills.
3) Reflect on and engage critically with arts experience and works.
4) Demonstrate an understanding of the origins, functions and dynamic nature of culture.
5) Experience and analyse the role of the mass media in popular culture and its impact on multiple forms of communications and expression in the arts.
6) Use art skills and cultural expressions to make an economic contribution to self and society.
7) Demonstrate an ability to access creative arts and cultural processes to develop self-esteem and promote healing.
8) Acknowledge, understand and promote historically marginalised arts and cultural forms and practices.

Key elements of the specific outcomes include **redress** of past inequities in Arts and Culture Education and Training, **communication** through the arts, learning **across the curriculum** through the arts, arts **integration** , **assessment** in the arts to promote selfgrowth and understanding the context of arts experiences. Also important are the action verbs (underlined) to teach and learn while being involved in music.

Recent trends at I.S.M.E. (International Society for music education) conferences and national S.A.M.E.S.-conferences suggest the emphasis is shifting from '*music-as-talent*' ('elitist' subject) to '*music-for-all*', (an 'integrated' subject).

The praxial philosophy does not support an integrated or interdisciplinary approach to music. The aesthetic philosophy supports integration amongst the arts. The praxial philosophy regards knowledge or intelligence as a condition for *'music-for-all'*. The *'Mandala'* approach supports knowing (critical thinking) as condition for *'music-for-all'*. However, in order to follow the world-wide trend of a holistic music approach, the music specialist's role especially in the primary school will have to be scrutinized carefully. The '*Mandala*' approach to music as a holistic approach, acknowledges that the role of the class teacher is the key to an integrated music approach and not the music specialist. The empowerment of the general class teacher to also embrace the responsibility of teaching music, together with all the other subjects at

primary school level, is in step with the recent implemented National Curriculum in England[69]. The following reasons could serve as justification for the latter:

a) the general class teacher is responsible for the whole of the child's education for at least a full year,

b) the holistic view of the class teacher enables the teacher to match appropriate activities to the child's level and to monitor learning with sensitivity.

c) empowering the 'generalist' to perform traditionally 'specialist' subject teaching, will effectively combat the notion of music as 'elitist' subject, substituting it with *'music-for-all'*.

Glover and Ward[70] proposed that the traditional subject specialist be *'promoted'* to that of music co-ordinator or consultant, whose tasks will include inter alia:

a) supporting the general class teacher and not replacing him by the music specialist,

b) leading curriculum planning across the school,

c) advising colleagues about developments within their own teaching,

d) supporting the work of the class teacher by:

   i) drawing up schemes,

   ii) giving guidance and support to other teachers,

   iii) assisting in teaching where necessary,

   iv) having responsibility for resources,

   v) assessing the effectiveness of the support by visiting classes to observe work in progress[71].

Christening the music specialist as music co-ordinator or consultant, puts him/her on par with counterparts already existing within other school academic subjects.

4.1 CRITICISM AGAINST AN INTEGRATED MUSIC APPROACH

1. It is ineffective if covering too many subjects at the same time (so called umbrella approach).

---

[69] J. Glover and S. Ward, Teaching Music in the Primary School, Cassell, London, 1993, pp. 19-43.

[70] op. cit., p. 30.

[71] op. cit., p. 26-32.

2. The music specialist teacher approach makes music very difficult to integrate into the work of the class.
3. The danger exists that if not planned well, the music will be taught superficially, damaging the musical experience of children.
4. The danger exists that children are encouraged to listen to music about something, e.g. music which sounds *'like the wind'* in a topic on *'weather'* or to compose programmatic music. This ignores the inherently musical aspects of music and composition. Programmatic music is also hard to do well.

Support for an integrated creative music approach came from England's recently implemented National Curriculum and Japan's *'Gesamtunterricht'*[72] and *'gouka gakushuu'* (subjects-integrated- learning) approaches. Glover and Ward suggest two possible ways of effectively integrating music into the primary school curriculum:

a) linking music with two curriculum areas, e.g. music and science, music and history. The finding of the real links between music and another curriculum subject, is paramount.
b) integrating music fully into a curriculum topic, i.e. the thematic approach.

5. SELF-ACTUALIZATION

According to the '*Mandala*' approach creativity is tantamount to self-actualization or selfgrowth and an important justification of music in schools. This is in contrast with the aesthetic approach's intrinsic values, i.e. aesthetic experiences, qualities and sensitivities[73]. The praxial philosophy supports the self-actualization value of music although undeciding upon the creative personality. The values of making music and listening include self-growth, self-knowledge (constructive knowledge) and enjoyment (Optimal experience).

Enjoyment and self-growth are based on the following conditions, i.e. something to do or a

---

[72]K. Koizumi, 'Creative Music Education in Japan During 1920's: The Case of the Elementary School attached to Nara Women's Higher Teachers College,' British Journal of Music Education, Vol. 11, No. 2, July 1994, pp.157-162.

[73]C. Leonhard and R. House, Foundations and Principles of Music Education, Mcgraw-Hill Book Company, 1959.

B. Reimer, A Philosophy of Music Education, Prentice-Hall, Inc., Englewood Cliffs, New Jersey, 1970.

challenge, the know-how to take on the challenge and a 'match' or 'balance' between a challenge and the 'know-how'. When a person has the 'know-how' and the challenge matches this 'know-how' it brings enjoyment to the 'self' and person.

In musical terms a challenge may be a composition to perform and listen for, improvisation to improvise, a composition to compose, a performance to listen for, etc. Elliott justifies music education on essential life values that most individuals and societies pursue, i.e. self-growth (personal growth), enjoyment, self-esteem, happiness, differentiation and complexity. Neglecting music education programmes in schools inevitably denies students/pupils a unique and major source of fundamental human life values. Arranged music like composing, performance contribute to self-growth, self-knowledge and enjoyment.

By applying the "power" principles of the 'Mandala' approach to music the development of children's musical selves will grow in their creative thinking as performers, composers and active listeners.

6. KNOWING VERSUS KNOWLEDGE

In a 'Mandala' context knowing means internalized understanding of knowledge. It includes how we think about or process information/knowledge (know-how). Performance/composition/ analysis is equal to musical knowledge and understanding of a music practice's artistic performance/improvisation/analysis skills and creative attitudes/values. Performance/ composition/analysis is therefore both head and hand tasks and is interactive within a specific context. Internalized and interpreted knowledge within the value system of a person via problem-posing, - solving and judgement/decision making are the invisible part of performance/composition/analysis. The visible part of performance/improvisation/analysis includes the manipulation of tools and manual dexterity that occurs within an interactive context.

From an Outcomes-based point of view knowledge is the content of learning while knowing implies competence. Competence is internalized content brought about by creative-action-learning. The skills needed to transform content into competence is the creative-thinking skills of the 'Mandala' "power" principles.

Robert W. Sherman[74] in his article Creativity and the condition of knowing in music writes:

> *"It is a generally accepted notion that the purpose of music education is the formation of a knowledgeable musician. This is not an entirely unworthy goal ... it is only half of the total equation that begins with knowing. ... A knowing musician is understood to be one who knows music; a knowledgeable musician is one who knows about music'.*

Knowing is expressed in music through composing/improvisation and performing as well as analysis. Knowing is a quality of understanding that is communicable, but cannot be verbalized. The knowing musician is one who can solve musical problems through performance, improvisation/composition and analysis. The knowledgeable musician knows ***about*** music. The knowledgeable musician is therefore the product of a foundationalist conception of knowledge, whereby learning occurs through the transferal of knowledge. Students or pupils are not allowed to be creative, to make decisions or to be critical. Problem-solving musical exercises are merely "*simulated or mock problems*"[75]. Questioning is being regarded by pupils as a farce, a tedious way of getting to the point. Answers are already known by the music teacher who is only delaying the process of problem-solving and knowing. The delaying of answers is justified by teachers to appeal to benefits such as, making students think, and character-building benefits of struggling with something (referential justifications for music).

Elliott reiterates that knowing through performance or knowing how to perform, differs from being able to produce tones and rhythms. To teach effective practising, teachers must help pupils understand how their practising leads to final ends, i.e. '*means to dreams*'[76].

The difference is *musicianship*. Musicianship involves formal, informal, impressionistic and supervisory knowledge. The sum of this knowledge constitutes knowing-in-action. Elliott uses knowledge and knowing as synonyms and often in a nebulous sense. The impression deducted is that procedural knowledge, inter alia, pre-empts knowing to become finally more or

---

[74]D.L. Hamann, 'Creativity in the Music Classroom', Music Educators National Conference, 1991, pp. 7-10.

[75]J. Dewey, Democracy and Education, McMillan, 1960, p. 182.

[76]D.J. Elliott, Music Matters: Towards a New Philosophy of Music, Oxford University Press, 1995, p. 289.

less the same thing. A musician performs well only if he possesses *musicianship* which is in fact nothing more than different types of knowledge to constitute '*knowing-in-action*' (The theme of his theory). Yet, he differentiates later between procedural knowledge and formal knowledge. Procedural knowledge is the basis for musicianship which constitute knowing or know-how and which he says is dynamic. Formal knowledge teaches you *about* music and is static (e.g. '*facts*'; '*procedures*'; '*rules*' *and* '*theories*').

The '*Mandala*' approach to music regards Elliott's *musicianship*, inter alia as part of the enabling skills (knowing) needed for creative thinking in music. Musicianship includes:

a. Formal knowledge

Formal knowledge means propositional knowledge, declarative knowledge or '*knowing-that*'. It refers to verbal facts, theories, concepts, descriptions, i.e. textbook-type information.

The practical philosophy of music holds that formal knowledge should form part of the learning-teaching situation parenthetically and contextually. It should form an integral part of solving authentic musical problems through active music making.

Formal musical knowledge should be converted into musical knowing-in-action. Formal knowledge in music involves history of music, knowledge about notation, and how to decode and encode musical sounds ('*musical literacy*!'). Musical literacy should not be confused with musicianship. It is only part of it.

In order to judge or value thinking-in-action we need critical thinking which Elliott calls '*thinking-in-action*'.

It is also possible to reflect on one's reflecting-in-action.

b. Informal musical knowledge (Situated knowledge/experience)

Informal musical knowledge roughly refers to '*experience*', '*practical common sense*' or '*know-how*' developed by people over a period of time within specific domains or practice.

Informal knowledge is not antithetical to formal knowledge, but is different from formal knowledge. In music, informal knowledge is:

(i) Informal musical knowledge (like procedural and informal knowledge) is situated knowledge.

(ii) Informal musical knowledge cannot be learned in abstraction from the actions and the context of actual music making.

(iii) Informal musical knowledge develops through critical musical problem solving.

(iv) Informal musical knowledge is not essentially irrational or unintelligent, but artistically thought-full.

(v) Informal musical knowledge helps us to assess, categorize and 'place' our musical actions.

(vi) Informal musical knowledge helps us to reflect on and in our actions.

(vii) Informal musical knowledge helps us to make critical musical judgments in action.

It also involves:

(viii) reflecting critically in action in music or critical reflecting-in-action in music.

(ix) when and how to make musical judgements.

(x) understanding the musical situation or context.

c. Impressionistic musical knowledge ('intuition')

Impressionistic musical knowledge involves cognitive emotions. It also refers to '*intuition*' (a strongly felt sense that one line of action is better than another), '*cognitive emotion*'[77] or '*knowledgeable feelings*' and '*mindful feeling*'[78].

Thinking and feelings according to Elliott are hybrids or interdependent.

d. Supervisory musical knowledge ('imagination', judgement, ethics)

It is that musical knowing which manages, guides and advances one's musical thinking and musicianship in and over time.

It involves:

(i) a sense of musical personal judgement.

(ii) the understanding and devotion of the musical obligations and ethics of a given practice.

(iii) 'heuristic *imagination*' (imagination in action).

Elliott is concerned with knowledgeable music making (and inter alia creating knowledgeable musicians), the sum total of which he equates with knowing.

Artistic music making and intelligent music listening for him involve a multidimensional

---

[77]I. Scheffler, 'In Praise of Cognitive Emotions,' Teachers College Record 79, no. 2, 1977, pp. 171-186.

[78]P.A. Wagner, 'Will Education Contain Fewer Surprises for Students in the Future?' in Varieties of Thinking, (ed.) V.A. Howard, New York: Routledge, 1990, p. 161.

relational, coherent, generative, open and educable form of knowing called musicianship. Elliott further distinguishes five musicianship or performance levels, i.e. novice, advanced, beginner, competent, proficient and expert.

7. THE INTER-CULTURAL APPROACH

Benjamin Franklin[79] once said : *" there are two certainties in life that all people will face: They must deal with the inevitability of death, and they must pay taxes"*. To these, Richard W. Brislin and Tomoko Yoshida[80] added : *"People must interact with others from very different cultural backgrounds, whether they are well-prepared to do so or not."* John Drummond (New Zealand)[81] reports on the facilitation of multicultural music education. He asserts:

> *"In many cultures [e.g. African] music is not an activity separated from other forms of communication or social activities. Cultural interaction is often best served by taking* ***a holistic approach."***

The '*Mandala*' interactive approach to music is a holistic approach being inter alia based on creative thinking problem- solving strategies and action-learning modes of experience (composition/improvisation, performance and analysis) all to constitute knowing in music. This approach prompts for a creative doer (teacher and pupil) or *'cha-cha-rig'* (township slang for a doer)[82] who; is open to new and challenging experiences; thinks divergently; utilizes his enabling skills; is prepared to take risks in learning and teaching and where the learning intentions and creative products per se are often subordinate to the creative process (*'re-factor'*). A holistic approach implies holistic teaching, i.e. *'brain-lateralisation'* or left and right brain teaching[83].

---

[79]R.W. Brislin and Yoshida Tomoko, Improving Intercultural Interactions. Multicultural Aspects of Counseling Series 3, STAGE Publications, 1994, p. 1.

[80]ibid.

[81]J. Drummond, 'Community Music in a Multicultural Society,' Talking Drum, newsletter no. 4, February 1995, p. 13.

[82]G. Anstey, 'Inside Personality, The girl next door,' Sunday Times, 14 January 1996, pp. 30-31.

[83]M. Whiteman, 'Opvoeding of Opleiding? Kruisstrominge in Musiekonderwys Vandag,' South African Society of Music Teachers, no. 116, June 1990, pp. 6-8 & 29.

Like Jung, who argues that the *'self'* is constantly striving for wholeness or completion, Fung[84] believes " [in order] *to be a complete person in the modern world, one must be sensitive to culture in a global context.*"

The *'global village'* concept of Marshall Mcluhan[85] has become a reality through the technology of travel and communication, being echoed and encapsulated by Kiri Te Kanawa's rendition of *'World in Union'*. This *'global village'* perspective brought diverse musical cultures together, prompting the need for greater understanding and interaction, amongst each other.
Paul Rommelaere[86] comments on the lack of interaction between different people (race groups) and cultures as was reflected in the past education system of South Africa.
He writes:

> *"There are a myriad problems that face us, not the least of which is the watertight compartmentalization along cultural and social lines existing in our schools. Given this lack of interaction at a human level, how can one expect any tangible exchange to take place at a musical level?"*

About multicultural music education in South Africa he writes:

> *"True multicultural education* [i.e. intercultural education]*, as opposed to a mere flirtation with the idea, depends on our ability to share, research and explore, and a willingness to go back to school"*[87]

The acute shortage of teachers capable of teaching different musical styles and/or cultures in South African schools, is a definite drawback for a holistic (intercultural) music approach in South Africa. Another drawback is the fact that most higher education institutions still lay stress on Western music (assimilationist music curriculum), which ultimately impairs curriculum reform.

---

[84]C.V. Fung, 'Rationales for Teaching World Musics,' Music Educators Journal, Vol. 82, no. 1, July 1995, pp. 36-40.

[85]M. McLuhan, The Global Village: Transformations in World Life and Media in the 21st Century, New York: Oxford University Press, 1989.

[86]P. Rommelaere, 'Thoughts on the Feasibility of Multicultural Education,' South African Society of Music Teachers, no. 115, December 1989, pp. 14-15.

[87]op. cit., p. 15.

The above-mentioned impediments are true from a *'music in education'* or school music point of view. The vision of *'music in culture'* as practiced in Thailand empowers the expert in traditional music to be employed in schools[88]. *'Music in culture'* will lead to *'music as culture'* to constitute what Elliott calls the *'amalgamationist curriculum'*[89] ideology of multicultural music education. Such an approach, in the interim, is also envisaged for South Africa and as part of the transformation from a particularizing (fragmented) focus to a holistic comprehension. Elliott also justifies the development of musical preference by linking it with the cultural-ideological profiles and beliefs constructed about music works, i.e. music as culture (music practices are music cultures)

James Banks and Estelle Jorgenson suggest a concentric-circle model (insular multiculturalism) for the inclusion of world musics in education. Such a model should *"develop clear positive, and reflective self-identifications at three levels; i.e. ethnic, national and global"*[90]. Such an *'outreach'* approach acknowledges the need for a holistic or global perspective of understanding the nature of music which emanates from the reflective ethnic identification, as the innermost level.

With multiculturalism Elliott proposes a social ideal i.e.

> *"a policy of support for exchange among different social groups to enrich all while respecting and preserving the integrity of each"*[91]

Interculturalism in music education connotes that the music practitioner inducts his/her pupils in as many musical culture-specific practices, including the unfamiliar musical practices. By venturing into unfamiliar music practices (musical risk taking) pupils learn more about themselves and their relationships to others, i.e. self-understanding through '*other understandings*'. Through intercultural music education the individual connects the '*self*' with the personhood of other musicians and audiences in other times and places, i.e. music

---

[88]T. Takizawa, 'The Curriculum of Music Education from the Viewpoint of Asia - A treatment of Western Music and Traditional Music,' in Music Education: Facing the Future, (ed.) P.B. Dobbs, Helsinki, Finland, 1990, pp. 267-274.

[89]D.J. Elliott, Music Matters, Oxford University Press, 1995, pp. 291-292.

[90]C.V. Fung, 'Rationales for Teaching World Musics,' Music Educators Journal, Vol. 82, no. 1, July 1995, pp.36-40.

[91]D.J. Elliott, Music Matters, Oxford University Press, 1995, p. 207.

transcends cultural and time boundaries.

Elliott proposes guidelines when it comes to deciding which musical-practice to select for educational purposes. These guidelines I support.

1. Music making should start with the child's own musical culture. It is important for self-growth and enjoyment that pupils' novice level of musicianship should meet the musical challenges put to them.
2. Self-growth, constructive knowledge and musical enjoyment develop when engage with progressive more challenging musical goals. Musical depth is necessary to explore unfamiliar musical cultures. Recognising the traditional music cultures of pupils or the local community boost the self-identity of the person belonging to the respective music culture or community. Charles Taylor encapsulates this:

> *"[A] person or a group of people can suffer real damage, real distortion, if the people or society around them mirror back to them a confining or demeaning or contemptible picture of themselves. Nonrecognition or misrecognition can inflict harm, can be a form of oppression, imprisoning someone in a false, distorted, and reduced mode of being"*[92]

For Elliott musical works are multi-dimensional in essence.

According to Elliott musical works do not represent or signify pure sound only, as postulated by aestheticians[93]. In addition to pure sound, sounds of every day existence, e.g. speaking sounds, working sounds, become part of the content of some musical works. Musicians often link musical patterns to a variety of cultural and personal concerns, e.g. religious, moral, technological, practical, political and historical ideas or events. Musicians through musical works often pursue enjoyment and self-knowledge values. Musical works around the globe vary in intensity and in the extent to which they emphasize syntactic patterns or non-syntactic patterns. Musical works are not equivalent to compositions as postulated by aesthetic education but also include improvisations or the performing of remembered performance. A composer's intentions become apparent only in a performance of his or her composition.

---

[92]C. Taylor, Multiculturalism and 'The Politics of Recognitions', Princeton, N.J.: Princeton University Press, 1992, p. 25.

[93]B. Reimer, A Philosophy of Music Education, Prentice-Hall, Inc., Englewood Cliffs, New Jersey, 1970, p. 20.
E. Hanslick, The Beautiful in Music, Da Capo Press, New York, 1974.

Elliott further differentiates between expressional, representational and design-based musical works or music which he refers to as *'heuristic devices'*.

The '*Mandala*' approach supports the notion of learning by induction.

> "*a music student/pupil like an apprentice ..., must be '**inducted**' into a practice and its culture: in a significant way learning is .... a process of enculteration*"[94].

Teachers should induct pupils into the way of life of a music culture. Since recordings may decontextualize a culture-specific practice, pupils should be confronted through problem-solving musically productive problems of performing, improvising, composing, arranging and/or conducting.

Elliott explains the levels of induction into a practice.

(a) The novice is characterized by:
   - (i) essentially trial-and-error musical thinking.
   - (ii) no thinking-in-action abilities.
   - (iii) little informal, impressionistic or supervisory musical knowledge.
   - (iv) not yet had time to '*situate*' himself in the context of the musical practice.
   - (v) no attention left for musical problem-solving.
   - (vi) focus is local not global.

(b) The advanced beginner is characterized by:
   - (i) being able to think in-action.
   - (ii) beginning to '*proceduralize*' musical knowings.
   - (iii) an ability to focus locally and globally.
   - (iv) an ability to think reliably or fluently.

(c) The competent person's musicing is characterized by:
   - (i) procedural verbal knowings.
   - (ii) an ability to reflect-in-action.
   - (iii) being able to solve musical problems.
   - (iv) a lack of ability to find musical problems on his/her own.

---

[94]D.J. Elliott, Music Matters, Oxford University Press, 1995, p. 177.

(d) The proficient musicer:

(i) needs not to reflect on his/her actions, because the musicing is fluent thinking-in-action and reflecting-in-action.

(ii) possesses informal impressionistic and supervisory musical knowledge which informs her thinking-in-action.

(e) The musical expert or artist:

(i) possesses '*deep situational understanding*'.

(ii) possesses full integration of procedural, formal, informal, impressionistic and supervisory musical knowledge.

(iii) solves all problems of musical execution in a composition.

The induction of pupils into particular music cultures also means that knowledge cannot be separated from the context in which it is learned and used. The standards and traditions of a specific practice can be taught by learning situated forms of knowing. These knowings are musical problem-solving of authentic works in the context of a specific musical practice.
Elliott believes that an alternative for the technical-rational teacher notion is the teacher-as-reflective-practitioner and the alternative for the conventional objective-based curriculum is the practical curriculum making.

The '*Mandala*' lesson format proposed (see Figure 3, Appendix C) is based on the stages of creativity as well as Elliott's *'curriculum-as-practicum'* stages. Central to the musical practicum is the teacher that serves as a role-model, mentor or embodiment of the practice sought after. Elliott's stages are:

(a) Stage One: Orientation

This stage involves cycling back and forth between one's philosophy of music education and the questions raised by each common place i.e. aims, knowledge, learners, teaching-learning processes, teachers, evaluation, learning context.

(b) Stage Two: Preparation and planning

The goal of this stage is to make concrete decisions for short-term and long-term teaching and

learning relevant to one's own circumstances. Preparation seeks a general framework for the future based on diverse responses, surprises, and shifting objectives-in-action. Planning on the other hand is more formal with the focus on constraints. Action and outcomes are stipulated in words (verbally) and defend against uncertainty.

Writing or planning lessons in advance gives especially the novice teacher the commitment, confidence and security to act.

Elliott proposes inter alia that teachers should write a summary lesson plan after the teaching-learning situation as a means of reflecting on thinking-in-action. By reflecting on his or her thinking-in-action such a teacher may grow and plan for future reference and revision.

(c) Stage Three: Teaching and Learning

This stage is the most important for the curriculum-making process, because this is the stage where both teacher and learner interact on the educational aims, subject matter knowledge, teaching processes, learning processes and assessment procedures. An excellent curriculum is one in which an excellent teacher interacts with students in educationally sound ways.

(d) Stage Four: Evaluation

Curriculum evaluation should take all the curriculum common places into consideration, i.e. aims, knowledge, learners, teaching-learning processes, teachers, evaluation and learning context.

Elliott believes that the curriculum-as-practicum is appropriate for all learners (professionals and other) and essential for developing musicianship and musical creativity.

Because evaluation of music is a controversial issue, Elliott proposes a 'qualitative' or critical approach to curriculum evaluation. The *'Mandala'* approach supports the evaluation approaches which include *benchmarks* and the *process-folio*.

SUMMARY

In South Africa music curricula are often biased towards *'music-as-talent'* rather than '*music-for-all'* culminating in political and financial consequences for music educators. The Western conception of aesthetics is based on a passive listener or viewer who is imagined as sitting quietly with fixed attention upon the musical event. People respond in an emotional way to aesthetic creations or objects called aesthetic experiences. In contrast the praxial philosophy of music postulates a less subliminal albeit pragmatic approach to music. Music is fundamentally a man-

made, multicultural, multidimensional, tetrad, and praxis, performed by music practitioners in the context of a *'curriculum-as-practicum'* or music *'in situ'*. Through *musicianship* music conceived as a diverse human practice is fundamentally educable - something that all can do or make.

This chapter critically addressed the aesthetic versus the praxial philosophies of music culminating in the philosophical roots of the *'Mandala'* approach. In essence this chapter is a comparison between the aesthetic, praxial and *'Mandala'* approaches to music. The *'Mandala'* practical teaching approach to music includes:

1) Music making is problem-focused learning.
2) Music making is a creative thinking process.
3) Music making is creative-action-learning.
4) Music is a holistic cultural phenomenon, implying integration with all subjects.
5) Music making is a selfactualizer.
6) The knowing musician in class.
7) The intercultural role of music.

CHAPTER 2

THE NATURE AND JUSTIFICATION OF CREATIVITY TOWARDS A CREATIVE PHILOSOPHY FOR THE *MANDALA* APPROACH

INTRODUCTION

In this chapter I shall analyze the complexity of the concept of creativity and justify why creativity should form the core of the '*Mandala*' approach to music education in South African schools. Developing a philosophy of creativity for the '*Mandala*' approach will evolve from this discussion.

Elliott propounds that creativity means:

a) a form of procedural musicianship which both pupil and teacher should possess in order to know music well.

b) making something, a tangible product or musical achievement.

c) contextual music making, i.e. musical works are interdependent on their social and cultural context.

d) performing and improvising music.

e) that no musical practice is inherently more creative than another, i.e. no musical practice is inherently better than another.

f) not all children are creative, only those who possess expert levels of musicianship.

g) ordinary thought processes which are mainly conscious.

For the '*Mandala*' approach to music, which in essence is a creative approach to music, I shall argue that creativity (creative thinking) means:

1) thinking and doing to constitute tangible products.

2) something that **all** people possess albeit they differ in potential, i.e. an universal dormant personality skill which is teachable, learnable and could be acquired by **all**.
3) a self-actualization approach.
4) being influenced by the social context of the person.
5) both conscious and unconscious domains of the '*self*'.
6) an interactive problem-solving process.
7) is a condition of knowing which evolves from a creative doer, process and product in an interactive way.
8) being compatible with transformation and integration in education.

Unlike Elliott I shall focus on creativity as universal phenomenon for the justification of the '*Mandala*' approach in music. I shall counter whether creativity is in conflict with integration in education or whether creativity and integration are compatible with each other to form the fundamental basis of the '*Mandala*' approach to music.

1. CREATIVITY IS THINKING AND MAKING OR DOING SOMETHING ORIGINAL

Four different understandings and definitions of creativity should be illuminated. The first definitions which define creativity in terms of the **creative potential** of people emphasize aspects like ability, attitude or personal attributes of the creative person. The creative products or achievements arising from creative abilities are not more important than the creative process which precedes them. N.J Levy[95] states that:

> *"to be creative, one must be sensitive to problems and be available to outside experiences and impressions. He must have special gifts and special sensitivities and be skilled in certain areas."*

Erich Fromm[96] (1900 -) defines the condition of creativity as:

> *" the capacity for wonder, the capacity to face incongruity and tension, to orient oneself towards the new, to be aware of experience and to respond fully to such awareness."*

---

[95]M. Gilchrist, The Psychology of Creativity, Melbourne University Press, 1972, p. 10.

[96]E. Fromm, 'Creativity,' in (ed.) H.H. Anderson, Creativity and its Cultivation, New York: Harper, 1959, pp. 243 - 244.

The second school of thought on creativity places emphasis on **creative behaviour, creative activities** or the **creative act**. Jerome Bruner[97] defines creativity :

> *"It is implied, we think, that the act of one creating is the act of a whole man, that it is this rather than the product that makes it good and worthy."*

Bruner[98] illuminates the '*effective surprise*' component of the creative act, which has the quality of obviousness to them when they occur. Creativity defined in terms of creative behaviour, creative activities or the creative act ostensibly should evoke '*effective surprise*', the hallmark of creativity. The criterion of '*effective surprise*' as a psychological state becomes therefore a necessary and consistent criterion of creativity, but not exclusively to creativity. Two aspects of the creative act according to Bruner should be highlighted. Firstly, the creative quality is present in any kind of human activity and not only in painting, writing poetry or discovering scientific theories. Secondly, it is not only the genius (Mozart, Einstein etc.) who produces creative works. Creativity is also prevalent in acts of the ordinary, average human being. The acts of the creator unleash within himself psychological feelings or states (e.g. the thrill or relief to compose or paint), as well as vicariously causing a psychological impact on the beholder.

A third definition of creativity emphasizes the **creative product**. S.J. Parnes, president of the institute who publishes the periodical, **The Journal of Creative behaviour,** defines creativity as:

> *"behaviour which demonstrates both uniqueness and value in its product. The product may be unique and valuable to a group or organization, to society as a whole, or merely to the individual himself"*[99]

The fourth definition by D.P Ausubel[100] concentrates on the **creative person** . He states that the creative person or genius is a much more unique and rarer individual than the intelligent

---

[97]J.S. Bruner, The Process of Education, Cambridge, Massachusetts: Harvard University Press, 1963.

[98]H. Lytton, Creativity and Education, Routledge & Kegan Paul, London, 1971, p. 2.

[99]M. Gilchrist, The Psychology of Creativity, Melbourne University Press, 1972, p. 11.

[100]ibid.

person. He separates the creative from the intelligent person. He warns that christening a person as truly creative, should be done with circumspection and not casually :

> *" ...A truly creative individual ... is at such an extreme point in the distribution of creative potentialities that he is qualitatively discontinuous from persons exhibiting lesser degrees of creativity."*

Ausubel's definition thus restricts the term creativity to only the genius or very talented individual. The definition of Howard Gardner[101] provides for more humbler fields as well as to allow for a modest degree of creative achievement and is compatible with a '*Mandala*' approach to music. Both definitions, however, require value and originality in the created product. Gardner asserts: "*Creative individuals regularly solve problems or fashion products in a domain initially novel ultimately acceptable in a cultural setting.*"[102]

A fifth definition of creativity I propose as a further understanding of creativity. This working definition will form the basis of understanding creativity as a central aspect of the '*Mandala*' approach, and has only recently been attempted by Peter R. Webster[103]. He highlights the confusion surrounding the use of the term '*creativity*' in music education and points out that creativity used in music education was concerned with strategies and activities, e.g. activities by Carl Orff and Emile Jacques-Dalcroze. In order to clarify the current confusion surrounding the concept of creativity, Webster proposes a working definition for creativity. He proposes that the term '*creative thinking*' should substitute '*creativity*'.

In substantiating this claim he asserts that the emphasis is on the thinking process itself and on its role in music teaching and learning rather than the creative product alone[104]. This emphasis challenges educationists to understand how the mind works with musical material to produce creative works and tends to demystify creativeness, placing it in context with other kinds of abi-

---

[101]H. Gardner, 'Fruitful Asynchrony: Key to Creativity,' in D. Kirby and C. Kuykendall, Mind Matters, Boynton/Cook Publishers, Heinemann, 1991, p. 140.

[102] ibid.

[103]P. Webster, 'Creativity as Creative Thinking,' Music Educators Journal, Vol. 76, no. 9, May 1990, pp. 22-28.

[104]ibid.

lities and external influences. Webster's '*creative thinking*' includes both the **creative process** of creativity as well as the creative product both of which are intertwined with each other.
A sixth definition of creativity is proposed by Alfred Balkin's[105] creativity equation, C = 3P (creativity = **person, process** and **product**).

> *"Creativity, then, is an interaction of a person or persons with a process to produce a product. Sometimes the product is the personality itself. Sometimes the product may be the solution to a problem, which is also, in a sense, a product"*[106].

Balkin writes further:

> *"Simply stated, to create means to do, and that is the key. Creative people do things. They make. They assemble. They put together. They make connections where connections were not previously apparent".*

Balkin's definition of creativity encapsulates the very essence of the core of the '*Mandala*' approach. Firstly, his definition is a comprehensive definition, one which effectively summarizes previously mentioned definitions. Secondly, it takes the jargon out of defining creativity, by simply defining creativity as a **doing** activity or act. For the '*Mandala*' approach I wish to add Webster's '*creative thinking*' to Balkin's equation, in understanding creativity (see Diagram 7, Appendix B).

In conclusion, Webster's '*creative thinking*', Balkin's '*creative doing*' and Parnes's '*creative product*' components are encapsulated by Mary Mayesky's definition of creativity which deserves a key aspect of the '*Mandala*' approach. Mary Mayesky writes:

> *"Creativity is a way of thinking [creative] and acting or making [doing] something [product] that is original for the individual and valued by that person or others"*[107].

---

[105]A. Balkin, 'What is Creativity? What is it not?' Music Educators Journal, Vol. 76, no. 9, May 1990, pp. 29-32.

[106]ibid.

[107]M. Mayesky et. al., Creative Activities for Young Children, Third edition, Delmar Publishers, Inc., 1985, p. 3.

Guilford's[108] theory of creativity which is also significant for the *Mandala* approach corresponds with Webster's '*creative thinking*' definition. Like Webster he emphasizes the cognitive sphere of creativity.

Guilford distinguishes between intelligence and creativity. The former he believes constitutes memory and thinking, while the latter only involves thinking. Thinking involves cognition, production and evaluation, with the second, production, being paramount. Production develops as a result of convergent and divergent thinking. Divergent thinking according to Guilford is important for creativity to ensue. Divergent thinking involves: originality, flexibility or the ability to produce. Webster uses Guilford's theory to develop what he refers to as "*the model of creative thinking*"[109]. In the previous chapter, I used and modified Webster's model as the basis for the '*Mandala*' approach to music.

Wertheimer[110] uses the Gestalt school (1945) as the basis for interpreting '*productive thinking*'. Creative thinking consists of two stages namely: an unstable or unsatisfactory situation (S_1) which develops into the second situation that provides the solution (S_2). The division of wholes into sub-wholes and contemplating the sub-wholes without losing track of the whole, are important in the process of creative thinking for the *Mandala* approach. Wertheimer emphasizes '*intrinsic interdependence*' when it comes to searching for connections between elements and not just any relation. The process of creativity is for him '*one consistent line of thinking'.*

Arthur Koestler[111] built his theory of creativity around the concept of "*bisociation"*, which he defines as any mental occurrence simultaneously associated with *"two habitually incompatible contexts."*

---

[108]J.P. Guilford, 'Traits of Creativity,' in Creativity and its Cultivation, (ed.) H.H. Anderson, New York: Harper and Brothers, 1959, pp. 444-454.

[109]P.R. Webster, 'Creativity as Creative Thinking,' Music Educators Journal, Vol. 76, no. 9, May 1990, pp. 22-28.

[110]M. Wertheimer, Productive Thinking, New York: Harper, 1945.

[111]A. Koestler, The Act of Creation, New York: MacMillan, 1964, p. 95.

2. CREATIVITY IS SOMETHING THAT ALL PEOPLE POSSESS AND WHICH IS TEACHABLE, LEARNABLE AND MAY BE ACQUIRED BY ALL

According to Fromm et al, all humans have the capacity and potential for self-actualization, so that creativity is universal to all humans. H.H. Anderson encapsulates this: "*creativity is a characteristic of development; it is a quality of protoplasm ... there is creativity in everyone*"[112]. According to them, each and every activity which a person undertakes can be creative, because it is universal to life. However, "*the aesthetic and scientific achievements are merely the more acclaimed manifestations of the self-actualizing tendency.*[113]" Aesthetic achievements can lead to socially recognized achievements on the recognition of talent, study or practice. The theorists of the self-actualization approach distinguish between universal or general creative achievements and aesthetic or artistic creative achievements.

General creative achievements evolve from the urge for self- actualization, whilst the artistic and scientific achievements evolve inter alia from talent, study and practice. Fromm also proposes that the aim of education should be to help people to realize their creative potentials[114]. Like Fromm and others, Maslow (1908 - 1970)[115] believes that the creative potential is present in all humans and therefore universal. Maslow further asserts that education is important in order for people to develop creativity or self-actualization. Thus, Maslow uses creativity and self-actualization interchangeably. Self-actualization means self-growth towards psychological maturity and the realization of individual potential. He proposes that effective music education, as well as art education, are closer to self-actualization or creativity than other subjects and should therefore *"..become basic experiences in education"*. The latter part of the quotation, i.e. that music should form an integral and core subject in the school curriculum so that pupils are able to develop their creativeness and engender self-actualization is particularly relevant to the *Mandala* approach to music.

---

[112]H.H. Anderson, 'Creativity as Personality Development,' in (ed.) H.H. Anderson, Creativity and its Cultivation, New York: Harper and Brothers, 1959, p. 124.

[113]M. Gilchrist, The Psychology of Creativity, Melbourne University Press, 1972, p. 43.

[114] E. Fromm, Man's Search for Himself, New York: Rinehart & Co., 1947, p. 247.

[115]A. Maslow, 'Music Education and Peak Experiences,' in (ed.) R. Choate, Documentary Report of the Tanglewood Symposium, 1968, p. 73.

3. CREATIVITY IS A SELF-ACTUALIZATION APPROACH

The self-actualization approach to creativity has been developed by Fromm, May, Maslow, Rogers and Schachtel[116]. The gist of this approach is that personal growth or development and creative achievements are manifestations of a self-actualizing tendency within most humans. Self-actualization has to do with '*creative motivation*' - the urge to expand, extend, develop and mature. Self-actualization can be regarded as the driving force behind the creative process and the manifestation of personality is regarded as a creative product. In contrast with Freud who views creativity as springing from the unconscious conflicts (id, ego, superego) and which may lead to neurosis, the self-actualization theorists believe that a psychological healthy state is important for creativity to ensue. A psychological unhealthy state will only hinder the process of creativity. Self-actualization also means confronting those aspects (negative) of the '*self*' which prohibit an objective view of the world. Through psychological health and maturity one develops what Carl Rogers (1902 -) calls an "*openness to experience*" or possess "*extensional orientation*"[117] as a first condition for the creative person. This openness refers to an awareness of the '*inner self*' and of the external world which should complement each other positively.

Encountering the world of experience in a unique perceptual manner without distortions or projections, influences the quality of that encounter as well as creativity. Rogers relates his theory of creativity to the uniqueness of the individual. A second condition which Rogers states for the creative individual is, that the source of evaluative judgement should be internal and not external. Thirdly, one must have the ability to toy with or explore objects. Eric Fromm encapsulates this when he asserts that to see creatively means to see:

> *"without projections and without distortions, and this means overcoming in oneself those neurotic "vices" which necessarily lead to projections and distortions. It means to wake up fully to the awareness of reality, inside and outside of oneself ... only if one has reached a degree of inner maturity which reduces*

---

[116]M. Gilchrist, The Psychology of Creativity, Melbourne University Press, 1972, pp. 43-47.

[117]R. May, Psychology and the Human Dilemma, New York, Norton, 1979, p. 353.

> *projection and distortion to a minimum can one experience creatively"*[118]

Fromm asserts that humans are creative, because they possess the urge to rise above and transcend their basic animal nature: *"...In man's need for transcendence lies one of the roots for love, as well as for art, religion, and material production"*[119].

Fromm further differentiates between two meanings of creativity, i.e. creating something new and a creative attitude. Fromm's explanation of the creative attitude illustrates the '*Mandala*' symbol.

> *The condition of the creative attitude is the capacity to be puzzled, to concentrate to experience one's self as the true center of the world and as an agent of creativeness who can, at the same time, transcend the boundaries of his person in his relatedness to others and unity with the world. A further condition is to accept conflict rather than to avoid it"*[120].

The last statement: "... *is to accept conflict rather than to avoid it*" also signifies a problem-solving attitude. He further believes that the creative attitude is attainable by every human being, not only the gifted, artistic or genius kind. According to Ernest Schachtel (1903-1975)[121], a '*perceptual alertness*'(own italics), '*heightened consciousness*' or '*allocentric mode*' of perception of the world, objects and people is needed for creative behaviour. Such behaviour is without stereotype perception, or an autocentric mode of perception. An autocentric mode of perception, according to Schachtel, considers the object or people mainly with reference to the self, i.e. to fulfill needs or to be avoided. An allocentric mode of perception concentrates on the qualities of an object or person instead of the relationship of the object to the self. Creative experiences are frank and objective encounters with objects and people

---

[118]E. Fromm, 'The Creative Attitude' in H.H. Anderson, Creativity and its Cultivation, New York, 1959, p.45.

[119]E. Fromm, The Sane Society, New York: Holt, Rinehart & Winston, 1955, p. 37.

[120] E. Fromm, 'The Creative Attitude' in H.H. Anderson, Creativity and its Cultivation, New York, 1959, pp. 243 - 244.

[121]E.G. Schachtel, Metamorphosis, New York, Basic Books, 1959, pp. 167, 175.

which sharpen awareness and increases the ability to *'see more'* in objects and people, without falling prey to stereotype perception. Schachtel defines creativity as the:
"art of seeing the familiar fully in its inexhaustible being, without using it autocentrically for purposes of remaining in it and reassured by it."[122]

Abraham Maslow, a humanist psychologist, was more interested in the "*healthy self-actualizing, fully human*"-ness of a person which he believes is very close to a person's "*creativeness*". He writes:

> *"My feeling is that the concept of creativeness and the concept of the healthy, self- actualizing, fully human person seem to be coming clearer and closer together, and may perhaps turn out to be the same thing."*[123]

He distinguishes between two types of creativeness, i.e. "*primary creativeness"* and *"secondary creativeness". "Primary creativeness*" is present in all children and originates from the unconscious. This type of creativeness is also called the inspirational phase of creativity. The *"secondary creativeness"* refers to the production of products. Maslow asserted that more attention should be given to *"primary creativeness"* than *"secondary creativeness". "Primary creativeness"* places the emphasis on the creative attitude, person and creative process rather than the creative product[124]. Maslow's self-actualizing creativeness corresponds with Jung's (1875 - 1961) unconscious and conscious '*self*' as illustrated in his *Mandala* symbol.

4. CREATIVITY IS INFLUENCED BY THE SOCIAL CONTEXT OF THE PERSON

Creativity can also be influenced by the social context of the person. Murphy and Schachtel[125] investigated the role of social forces on the creativity of people. It is a known fact that young children are more open to experience, imaginative and generally more creative than the average adult and that as the child matures, he somehow loses these creative abilities. This

---

[122]op. cit., p. 238.

[123]A. Maslow, Further Reaches of Human Nature, New York: Viking Press, 1972, p. 59.

[124]ibid.

[125]G. Murphy, Human Potentialities, New York: Basic Book, 1958.
E. Schachtel, Metamorphosis, New York: Basic Book, 1959, pp. 186 - 187, 193.

incongruence between child and adult creativity researchers believed, could be ascribed to a strong measure of conformity exerted by both family and society. Children are taught through stop-rules to control behaviour, impulses and gratification of their needs in accordance with acceptable norms and values of the family, peer-group and society. Through the process of socialization the child conforms to these norms and values, which he later internalizes as part of his personality. He learns to act in accordance with the concepts and language of his family, society and peer-group. He learns appropriate behaviour, '*what is right*' and '*what is wrong*', what is being expected from a child, boy, girl, man, woman, etc. Deviation from the norms and values are met with disapproval, punishment or isolation. The individual learns quickly, that it is better to adapt to expected behaviour, in order to be accepted. Creativity is inhibited in adult life, because humans naturally fear the unfamiliar or unconventional and unknown.

The internalization of stop-rules and the often automatic generalization of them make the individual less prone to '*take chances*' or to '*take risks*'. Anderson and Cropley[126] believe that the difference in the level of creativity between adults and children and especially between males and females can be ascribed to the level of success of prohibitions internalized:

> *"One important aspect of the highly original person is his willingness to behave in socially undesirable ways, inhibited in others by the stop-rules. An obvious inference therefore is that the original individual has imperfectly internalized these rules just as they come from the parents.*

An illustration of this is the lack of creative contribution (especially composition)[127] from women which can be attributed to the greater control exercised over girls, so that deviation from norms and values internalized by parents is at its lowest amongst girls. Lasswell[128] believes that creative achievements occur in social groups and organizations where idiosyncracies of thought and behaviour are most tolerated. Creativity also flourishes the most in societies with reserves of capital, leisure for cultural pursuits, and a history of cultural and aesthetic interest.

---

[126]C.C. Anderson and A.J. Cropley, 'Some Correlates of Originality,' Austrian Journal of Psychology, Vol. 18, 1966, pp. 218 - 227.

[127]A.F. Isaacs, 'Sameul H. Adler, Famed Composer with Charismatic Charm,' The Creative Child and Adult Quarterly, Vol. IX, no. 2, 1984.

[128]H.D. Lasswell, 'The Social Setting of Creativity,' in (ed.) H.H. Anderson, Creativity and its Cultivation, New York, 1959, p. 89.

Aesthetic interest and creativity therefore seem to go hand in glove according to social psychology researchers.[129]

5. CREATIVITY INVOLVES BOTH THE CONSCIOUS AND UNCONSCIOUS DOMAINS OF THE 'SELF'

The psychoanalytic theories (Jung, Freud, etc.) emphasize that creativity and the creative product are the culmination of both unconscious and conscious motivations of the '*self*'. If this view is correct then through creativity great creative products may transcend human boundaries to become universal phenomena. It therefore means that creativity as act fundamentally is 'acontextual' by nature, i.e. not restricted by time, place or people.

Carl Jung's psychoanalytic theory on creativity is significant for this thesis. Philipson[130] writes that Jung believed the creative process, especially pertaining to art, consists of two modes: the **psychological** and the **visionary**. The content of the **psychological** mode rests within human consciousness and experience. Within this mode, most human experiences are intelligible, direct and purposeful. The **visionary** mode's content evolves from the unconscious and not so much from present reality or human experience. Jung further asserts that *'symptomatic art'* is creativity influenced by the unconscious, whilst *'symbolic art'* is creativity from the collective unconscious. Jung also distinguishes between the **personal unconscious** and the **collective unconscious**. The **personal unconscious**:

> *"... is a relatively thin layer immediately*
> *below the threshold of consciousness"*[131]

The **collective unconscious** is the depository of the primordial archetypes ("implanted from the beginning") that have repeatedly occurred in the course of generations. The archetypes may surpass man's understanding, are many-sided, demonic and grotesque. Koestler[132] writes:

---

[129]M. Gilchrist, The Psychology of Creativity, Melbourne University Press, 1972, p. 50.

[130]M. Philipson, Outline of Jungian Aesthetics, Evanston, Ell., North Western University Press, 1963, pp. 103 - 135.

[131]C. Jung, 'On the Relation of Analytical Psychology to Poetry,' in The Spirit in Man, Art and Literature, trans. by R.F.C. Hull, Routledge & Kegan Paul, London, 1966, p. 80.

[132] A. Koestler, The Act of Creation, New York: MacMillan, 1964, pp. 353 - 354.

"Jung described archetypes as 'the psychic residue of numberless experiences of the same type' encountered by our ancestors, and stamped into the memory of the race, that is, into the deep layers of the 'collective unconscious' below the level of personal memories. Hence, whenever some archetypal motif is sounded, the response is much stronger than warranted by its face value - the mind responds like a tuning fork to a pure tone".

In the visionary mode the person is at the mercy of the collective unconscious, i.e. in a passive situation:

"The work brings with it its own form, what he [the creator] would add to it is declined; what he does not wish to admit is forced upon him"[133]

Igor Stravinsky (1882 - 1971) agrees with Jung. Stravinsky believes that the germinal idea for *'The Rites of Spring'* came to him in a dream. Stravinsky asserts:

"Very little immediate tradition lies behind ***'Le Sacre du Printemps'****. I had only my ear to help me. I heard and I wrote what I heard. I am the vessel through which* ***'Le Sacre'*** *passed."*[134]

In the visionary mode the person is aware of a '*force*' or '*power*' which dictates the destiny and which is beyond the comprehension of the person. The product is what Jung refers to as an '*autonomous complex*'. The creative process consists of an '*unconscious animation of the archetype*'. Great art, according to Jung, transcends life experiences, personal factors or the historical time in which the creator might live. The one-sidedness experience of the life of the creator, actually and unconsciously facilitates the reawakening of the archetypes to constitute the creative process. By reawakening the archetypes in the collective unconscious, a wealth of experiences are being unleashed, which in turn gives the art product a universal significance. Central to the creative process, according to Jung, is the collective unconscious (myths, culture, art, etc.). There is a renewed interest in testing concepts such as repression and the unconscious through scientific methods.[135]

---

[133]S. Arieti, Creativity The Magic Synthesis, Basic Book Inc., New York, 1976, pp. 26 - 27.

[134]I. Stravinsky, 'Exposition and Development' in A. Storr, Music and the Mind, Harper Collins, London, 1993, p. 182.

[135]R. Specht and G.J. Craig, Human Development: A Social Work Perspective, Second edition, Prentice Hall, Englewood Cliffs, New Jersey, 1987, p. 72.

Freud viewed creativity almost tantamount to neurosis and a product of unconscious motivation. He postulates a tripartite structure of the psyche - id, ego and super-ego. The id, Freud believed, is the source for creativity. The id's forces are primitive, irrational and obey the pleasure principle. The ego develops from the external world and adapts actual behaviour in accordance with the realities of the environmental situation. The superego is the conscience of the person which has developed from the moral strictures of parents and other adults (teachers, etc.). The id often represents the unacceptable thoughts, feelings and memories which have been banned or repressed from the conscious mind and which often emerge in dreams, slips of the tongue or daydreams and fantasies. The process of the id is called 'primary' and those of the ego 'secondary'. The thinking in the primary process is irrational, pleasure seeking, primitive, concrete, unrealistic and fantastic. The sexual instinct for Freud is central to the creative process. The repression of the sexual instinct by the ego and superego due to the practical assessments of the circumstances happens unconsciously and causes tension. Because the discharge of psychic energy is prohibited by both the ego and superego, tension and frustration mounts within the person. How the individual adjusts to the conflicts and frustration (which is a product of hereditary disposition, tendencies acquired during childhood and external circumstances) will either lead to psychological health or neuroses. One way of attaining psychological health is described by Freud:

> *" ... and secondly, that of renouncing the libidinal satisfaction, sublimating the stored-up libido and making use of it to ends which are no longer erotic and thus elude frustration."*[136]

Such subliminal ends are of course the deflection of instinctual energy to pursuits of cultural or artistic types:

"Sublimation of instincts ...makes it possible for the higher mental operations, scientific, artistic, ideological activities, to play such an important part in civilized life".[137] Where the instinctual energies of the person are not channeled into intellectual or cultural pursuits, persons are in danger of becoming introverted, turned away from reality. Refuge is sought in phantasies (only unsatisfied people have daydreams or phantasies; happy people don't) which in turn calls up

---

[136]S. Freud, 'Types of Neurotic Nosogenesis' (1912), in (ed.) J. Rickman, A General Selection from the Works of Sigmund Freud, London: L.V. Woolf, 1937, p. 71.

[137]M. Gilchrist, The Psychology of Creativity, Melbourne University Press, 1972, p. 37.

forgotten early wishes (childhood experiences). A process of regression of the individual appears where the person regresses into earlier and primitive infantile stages, i.e. further away from reality and which may lead to neuroses of some kind.

Freud believes that the way back from phantasies is through art. The artist has the power to mould his phantasies into artistic creations and also represses less of the phantasy material which arises from the id. *"In the case of the creative mind, it seems to me, the intellect has withdrawn its watchers [ego and superego] from the gates, and the ideas rush in pell-mell, and only then does it review and inspect the multitude"*[138]
Thus, for Freud artistic creation evolves from the same psychic conflicts and frustration which lead to neurosis. The creative activity derives its instinctual forces from the id and the creative product is derived from unconscious sources. The creative person has greater access to these sources or content, because of his attitude which permits '*loosening*' of repression towards the id.

In the same Freudian framework Ernest Kris[139] and Lawrence Kubie[140] deviated from Freud in that they believed that creativity is a product of the preconscious and not of the unconscious. Kris viewed creativity exclusively from unconscious motivation, but emphasized the *'regression of the ego'*[141]. Woodman[142] explains what Kris[143] means by the *"preconscious": "This preconscious is on the borderline between conscious and unconsciousness and contains material "**capable of becoming conscious**" under proper conditions."*
Kris explains the working of his *"regression in service of the ego"* theory:

---

[138]S. Freud, The Interpretation of Dreams, Translated by A.A. Bril, London: Allen and Unwin, 1937, p. 111.

[139]E. Kris, 'On Preconscious Mental Processes' in R.W. Woodman, 'Creativity as Construct in Personality Theory', in Journal of Creative Behaviour 15, no. 1, pp. 47-48.

[140]L.S. Kubie, Neurotic Distortion of the Creative Process, Lawrence: University of Kansas Press, 1958.

[141]M. Gilchrist, The Psychology of Creativity, Melbourne University Press, 1972, p. 40.

[142]R.W. Woodman, 'Creativity as Construct in Personality Theory', in Journal of Creative Behaviour 15, no. 1, pp. 47-48.

[143]ibid.

" In the state of inspiration, the psychic apparatus is in an exceptional condition. The barrier between the id and the ego has temporarily become permeable. Impulses reach preconsciousness more easily then under other conditions, and their translation into formes expression can proceed painlessly. Forces previously used for repression are being used by the ego for another purpose. All energy seems to be vested in the process of coming to consciousness. The coming to consciousness in the case of creative effort presupposes a long unnoticed process of shaping: it is this process which, entrusted to preconsciousness, is geared to integration and communication".

An important contribution for the justification of creative thinking in our educational practices is being made by Kubie:

"... the free creative velocity of our thinking apparatus is continually being braked and driven off course by ... conventional educational practices. So long as conscious sampling is mistaken for thinking, education will continue to neglect the great preconscious instrument of creative learning."[144]

Greenacre[145] still in the framework of Freudian theory and Weisman[146] substituted Kris's *"regression in the service of the ego"* concept with *"the dissociative function of the ego"*. Arieti writes:

... Greenacre suggested that the ego of the future artist is capable of dissociating itself from real objects and thus developing a "love affair with the world"[147]

---

[144]L. Kubie, 'Blocks in Creativity,' in (eds.) R. Mooney and R. Razik, Explorations in Creativity, New York: Harper and Row, 1967, pp.40-41.

[145]P. Greenacre, 'The Childhood of the Artist', Psychoanalytic Study of the Child 12, New York: International Universities, pp. 47-72.

[146]P. Weissman, 'Theoretical Considerations of Ego Regression and Ego Functions in Creativity,' Psychoanalytic Quarterly, Vol.36, 1967, pp. 37-50.

[147]S. Arieti, Creativity The Magic Synthesis, Basic Book Inc., New York, 1976, p. 25.

6. CREATIVITY IS AN INTERACTIVE PROBLEM-SOLVING PROCESS

The '*Mandala*' approach views the creative process as an interactive problem-solving process. In line with problem-solving, I shall now look at three explanations of the creative process. The first is one developed by Joseph Wallas (1926)[148]. He believed that the creative process consists of four stages:

1) **preparation stage** - getting information and whatever is needed to do the job. The creative person thinks in a free way, collects information, searches for connections, listens to suggestions and lets his mind wander. Obviously the imagination and senses of the person play an important role here.

2) **incubation stage** - letting things develop and hatch or letting the unconscious take over from the conscious. No time limit can be ascribed to this period. All the data needed and absorbed from the previous stage undergo metamorphosis within the unconscious mind - reorganizing and elaborating, seeking connections to facilitate the next stage. The unconscious mind and the processes there are still presently an unexplained, intricate phenomena.

3) **illumination stage** - this is the eureka or the '*aha*' moment[149], the '*magical synthesis*' or '*effective surprise*' stage. The creative person discovers the solution to the problem. It is a sudden intuition, clear insight or a feeling - something between a '*hunch*' and a '*solution*' and at other times the result of a sustained effort.

4) **verification stage** - critical evaluation of the innovator before acceptance. The results are fully worked out, analyzed and completed.

Joseph Rossman(1931)[150] expanded Wallas' four stages to seven steps:

1. Observation of a need or difficulty
2. Analysis of the need
3. A survey of all available information
4. A formulation of all objective solutions

---

[148]op. cit., p. 15.

[149]A. Balkin, 'What is Creativity? What is it not?' Music Educators Journal, Vol. 76, no. 9, May 1990, pp. 29-32.

[150]J. Rossman, Industrial Creativity: The Psychology of the Inventor, New York: University Books, 1964, p. 57.

5. A critical analysis of these solutions for their advantages and disadvantages
6. The birth of a new idea - the invention
7. Experimentation to test out the most promising solution, and the selection of the final embodiment by some or all of the previous steps.

Osborn (1953)[151] like Rossman, divided the creative process into seven stages, but uses different terminology:

1. Orientation : pointing up the problem
2. Preparation: gathering pertinent data
3. Analysis: breaking down the relevant material
4. Ideation: piling up alternatives by way of ideas
5. Incubation: '*letting up*', to invite illumination
6. Synthesis: putting the pieces together
7. Evaluation: judging the resulting ideas.

Taylor in Arieti[152] agrees with Wallas' stages, but believes that creativity exists at five different levels, i.e.:

1) **expressive creativity or independent creativity**:- there is no reference to the quality of the product.
2) **productive creativity**:- when the creator produces an object and shows mastery over the environment.
3) **inventive creativity**:- discovering a new use for old parts.
4) **innovative creativity**:- when new ideas or principles are developed.
5) **emergent creativity**:- the ability to absorb commonly known experiences and to produce something unique from it.

The second explanation of the creative process is that of Parnes which he refers to as the '*creative problem-solving process*'[153]. This process according to Parnes involves '*observation*', '*manipulation*' and '*evaluation*'. He is aware of the role which the unconscious and the

---

[151]A.F. Osborn, Applied Imagination, New York: Scribner's, 1953, p. 125.

[152]S. Arieti, Creativity The Magic Synthesis, Basic Book Inc., New York, 1976, p. 16.

[153]S.J. Parnes, Creative Behaviour Guidebook, New York: Scribner's, 1967, p. 36.

personality characteristics play in the creative process, but chooses to concentrate on the cognitive characteristics of the creative process. The five stages of Parnes are as follows:

1. **Fact-finding**: gathering and analyzing data in preparation for defining the problem.
2. **Problem-finding**: analyzing problematic areas in order to pick out and point up **the** problem to be attacked.
3. **Idea-finding**: idea production - thinking up, processing, and developing numerous possible leads to solutions.
4. **Solution-finding**: evaluating potential solutions against defined criteria.
5. **Acceptance-finding**: adoption - developing a plan of action and implementing the chosen solution.[154]

Parnes warns that his steps should not be followed rigidly, but that the stretching of the imagination is a key factor to achieve the openness he wishes to encourage within individuals. By openness he means the individual's capacity to tolerate ambiguities before judging or making final decisions about thoughts. He also proposes exercises in wider imaginative play as a means of stretching the imagination and creating many possibilities or factors to problems.

Mackinnon[155] also viewed the creative process as a problem-solving process, and is the third explanation. He believes that the creative person has a questioning attitude and sees problems where others do not. Like Parnes he also emphasizes the role of the imagination. Mackinnon's steps for the creative problem-solving process are as follows:

1. **a period of preparation** during which one acquires the elements of experience and the cognitive skills and techniques which make it possible for one to pose a problem,
2. **a period of concentrated effort** to solve the problem which may quickly be solved without much delay or difficulty, but which perhaps more often involves so much frustration, tension and discomfort that, out of sheer self-protection, one is led to,
3. **a period of withdrawal from the problem**, a psychological going-out-of-the-field, a period of renunciation of the problem or recession from it, a time away from the problem that is often referred to as a period of incubation, which is followed by,

---

[154]R.B. Noller, S.J. Parnes and A.M. Biondi, Creative Actionbook, New York: Scribner's, 1967, p. 1.

[155]D.W. Mackinnon, In Search of Human Effectiveness: Identifying and Developing Creativity, Buffalo, New York: Creative Educational Foundation, 1978, pp. 47-48.

4. **a moment of insight** that is accompanied by the exhilaration, glow and elation of the restructuring 'a-ha' experience; and
5. **a period of verification**, evaluation, elaboration and application of the insight that one has experienced.

Mackinnon's stages or steps show a remarkable similarity with those of Wallas. Except for the first two stages of Mackinnon, stages three to five are a replica of Wallas' creative process. Mackinnon's creative process stages or steps should not be conceived rigidly. Mackinnon's creative process is also compatible with the proposed 'interactive mandala' (Diagram 8, Appendix B).

Morris I. Stein's[156] stages of the creative process do not see creativity as a problem-solving process, but the formulation and testing of hyphothesis which also start with a preparation stage. An important contribution by Stein, is his fourth stage, i.e. communicating the results of the creative product to others.
Elizabeth Oehrle's[157] comparison of the stages of the creative process between Wallas (adapted by Patrick), Mackinnon, Parnes and Stein will conclude this section (Table 5, Appendix A).

7. CREATIVITY IS A CONDITION OF KNOWING WHICH EVOLVES FROM A CREATIVE DOER, PROCESS AND PRODUCT IN AN INTERACTIVE WAY.

The gist of the '*Mandala*' approach to education in music, is that music should be taught in schools as a genuinely creative-action-learning (not mimicry), i.e. creative-action-learning that will lead to knowing **in** music as opposed to knowing **about** music. Knowing in education will inevitably illuminate knowing about education, i.e. knowing leads to knowledge. Pupils should be given ample opportunities to toy, create, experiment and discover conditions of knowing **for themselves** and not always to rely on an outside authority or knowledge source in order to know. Knowledge should further be conceived as solutions to old problems and something

---

[156]M.I. Stein, Stimlating Creativity, Vol. 1, New York Academic Press, 1975, p. 16.

[157]E. Oehrle, A Case for Creativity in Elementary Music Education, Thesis submitted in partial fulfilment of the Ph.D.-degree, University of Natal, Durban, 1983, p. 73.

that "*keeps no better than fish*[158]". Old knowledge is solutions to old problems and may not be able to solve new problems in education or music. The main thrust of education in the past has been the transferal of **knowledge** from one generation to the next, e.g. preserving the musical heritage of the past[159], i.e. the '*masterpieces, the symphonic fine-art tradition*'[160]. Children were discouraged to find things out for themselves, but rather to rely on the so called expert or knowledgeable individuals. Creativity thus became the number one enemy of the educational establishment and conformity in education.[161]

The latter is encapsulated by Robert Sherman when he asserts:

> *"... a teacher [a dominating teacher who envisions himself or herself as a crusading taste maker] insists on having students compose, perform, or even listen according to the manner of the teacher or others in authority. Such students are never allowed to work out solutions of their own; they become forever dependent on others."*[162]

He further asserts that creative problem-solving is tantamount to self-actualization or personal growth:

> *"... By contrast, the teacher who stimulates the students's imagination through creative problem-solving is the teacher who prepares the student for a life of continued growth and accomplishment."*

Elizabeth Oehrle[163] ascribes the underlying causes of the absence of creativity in music education to the teaching of singing, music literacy, '*music appreciation*' classes, as well as the

---

[158]A.N. Whitehead, 'The Aims of Education' in (ed.) D.L. Hammann, 'Creativity in the Music Classroom', Music Educators National Conference, 1981, p. 14.

[159]T. Quinn and C. Hanks, Coming to our Senses: The Significance of the Arts for American Education, New York: Mcgraw-Hill Co., 1977, p. 72.

[160]A. Lomax, 'Appeal for Cultural Equity,' African Music Journal of the African Music Society 6, no. 1, 1980, p. 24.

[161]D. Swanger, 'Ideology and Aesthetic Education,' Journal of Aesthetic Education 15, no. 2, April 1982, p. 33.

[162]R.W. Sherman, 'Creativity and the Condition of Knowing,' Music Educators Journal, Part 2, November 1971, pp. 18-22.

[163]E. Oehrle, A Case for Creativity in Elementary Music Education, Thesis submitted in partial fulfilment of the Ph.D.-degree, University of Natal, Durban, 1983, pp. 475-495.

notion that *'art must be deemed safe'* by guardians of ideology before it will be allowed in schools.

The '*Mandala*' approach to music favours an interactive person-process-product orientated system rather than an information-gathering and memorizing system. The creative doer will thus have to be a process-product oriented individual who will develop intellectual growth, cultural refinement, personal fulfillment and psychological stability. The creative doer will get **actively** involved in the product of learning (e.g. composition, performance etc.). Critical judgement which is fundamental to creative thinking, will only ensue through involvement in the product. The selection, integration and utilization capacities as part of problem-solving activities can only be acquired through the process of production. Process as part of creativity is central to learning and is the vehicle for knowing. How does a creative process of knowing operate? I believe by delineating the creative process as an '*interactive mandala or cycle*', a better understanding of the creative mind will evolved.

7.1 THE CREATIVE PROCESS

Unlike Wallas, Parnes, Osborn, etc., who explain the creative process through step-wise stages, I propose that the creative process be contemplated as an endless '*interactive mandala*'. I believe that breaking down the creative process into simplified steps, only fragments creativity as an abstract phenomena. Although Parnes, for example, stressed that the steps should not be followed rigidly , a step-wise delineation proves precisely that. Although I support the stages as proposed by Wallas et al. (preparation, incubation, illumination and verification), I do not think of them in a step-wise manner. I do not think that creative products (including acts and thinking) originated as the result of a progression of preconceived steps. Most examples of creative thinking acts or products just happened spontaneously or at the spur of the moment. The discovery of plastics happened accidently. Newton did not plan to discover the laws of gravity, but only thought of it after an apple fell from a tree and landed on his head. Schubert and Mozart composed music spontaneously and with little effort. Chopin and Liszt could endlessly improvise melodies and tunes. Obviously most of the great creative thinkings, acts or products originated in unconventional ways and do not squarely fit into the stages paradigm of Wallas et al. I believe that a flexible interaction between the proposed stages will free the creative process from its present stepwise constraints. Diagram 8, Appendix B illustrates the '*interactive mandala*' concept of the creative process. The '*interactive mandala*'

of the creative process, corresponds with the '*success cycle*' proposed by Leslie Chamberlin[164] . The '*success cycle*' is used by the teacher as a means to enhance confidence amongst children for creative activity. (Diagram 9, Appendix B).

The success spiral represent the underlying philosophy of outcomes-based education. The premises assumptions of outcomes-based education according to Spady[165] are:

1) All students can learn and succeed, but not necessarily at the same speed and in the same way.
2) Success breeds success which enhances the selfimage or selfconcept.
3) Schools control the conditions of success, e.g. rules laid down for success behaviour and teaching approaches.

7.2 THE CREATIVE PRODUCT

I have stated earlier that the creative process and product constitute the condition of knowing in the creative person. The condition of knowing forms the core of the '*Mandala*' approach to music. Creativity as a condition of knowing, will therefore lead to a creative product whether tangible or intangible. A tangible product or output of the creative process can be a: musical composition, poem, artwork, scientific and technological objects. Intangible creative products are: ideas, thoughts and expressions. Gilchrist[166] encapsulates B. Ghiselin's definition of a creative product:

> *"B Ghiselin has stressed that the creative product, whether tangible or intangible involves a new meaning, a new insight or aesthetic realization which goes beyond minor variations of presentation or form"*

This suggests that not all manmade objects or human acts can be christened creative. Is the building of a fibreglass pool into the ground a creative product or act? Is the assembling of cars

---

[164]L.J. Chamberlin, 'The Success Cycle,' The Creative Child and Adult Quarterly, Vol. IX, no. 1, 1984, pp. 154-159.

[165] W.G. Spady, 'Lecture Address on Outcomes-based Education,' Nuwe Hoop Sentrum, Worcester, 4th November 1997.

[166]M. Gilchrist, The Psychology of Creativity, Melbourne University Press, 1972, p.12.

at a motorplant a creative product? When a class composes music or songs at the school, can these be called creative acts and products? The first two examples are no unusual acts or products today, although they could have been christened creative novelties, when discovered in history. The discovery of the plastic swimming pool or the automobile definitely were great, but not epoch-making discoveries, created by creative persons at an appropriate time in history. However, the discovery of plastic or the wheel were epoch-making discoveries. The discovery of plastic swimming pools and the automobile are thus modifications of an old idea.

The composing of songs and music may count as creative acts leading to creative products, but it will depend on the quality, novelty and appropriateness of the compositions. The above-mentioned examples succinctly stated two criteria of a creative product, i.e. unusualness or novelty and appropriateness. Jackson and Messick[167] present criteria of evaluating creative products. These criteria are alluded to by Mackinnon and will be utilized as framework for the ensuing discussion. Their study of the evaluation and assessment of creative products is one of the few studies undertaken which addresses this problem. These criteria distinguish ordinary products from creative products and are as follows:

7.2.1 Unusualness or Novelty:

> *"No matter what other positive qualities it might possess, we generally insist as a first step, that a product be novel before we are willing to call it creative"*[168]

Unusualness or novelty, thus represent a choice norm against which a creative work is judged, e.g. if a child's musical composition has an unusual representation of musical texture, the standard of comparison is other children's compositions. Gilchrist also favours originality (new, different, unique) as a criterion of creative products. The judging or evaluation of creative products as original could only be identified by matching it with old, usual, typical and commonplace products. The standard against which originality is judged can be provided by the individual himself or by a group of individuals. In other words a creative product can be judged original, by comparing past products with new products from individuals or groups.

---

[167]P.W. Jackson and S. Messick, 'The Person, the Product and the Response: Conceptual Problems in The Assessment of Creativity,' Journal of Personality 33, 1965, p. 2.

[168]op. cit., p. 3.

7.2.2 Appropriateness:

*"To be appropriate a product must fit its context. It must **'make sense'** in the light of the demands of the situation and the desires of the producers"*[169]

This criterion helps eliminate absurd products which are inappropriate. Jackson and Messick explain the criterion of appropriateness:

a) appropriateness is acceptable if a product "*manages to hang together and to have a logic of its own, even though it may violate conventional logic*"[170]

b) appropriateness as a continuous quality varies from '*about right*' responses to '*just right*' responses depending on the situation.

c) The judgemental for evaluating appropriateness is that " *'it must make sense' in the light of the demands of the situation and the desires of the producer*"[171].

F. Barron[172] in Gilchrist suggests that in order for a creative product to be appropriate and original, it should fulfil social or personal needs. This criteria according to Barron explains or justifies why the invention of the wheel is a higher level of creativity than the invention of the safety pin. Jackson and Messick assert that unusualness and appropriateness as criteria of creativity, should be used conjointly and not independently of each other. They also believe that as evaluation criteria, these first two operate commonly when judging most creative products.

Given the ambiguous and complex task when trying to implement all creative product criteria, I conclude that the first two should apply when judging most creative products.

7.2.3 Transcendence/Transformation:

This refers to the transformation power of the creative product which, according to Jackson and Messick, belongs to the higher level of creative excellence. With transformation they mean: *"to*

---

[169]ibid.

[170]ibid.

[171]ibid.

[172]F. Barron, Creative Person and Creative Process, New York, 1969, p. 20.

transform the constraints of reality ... that yield a new perspective ... They literally force us to see reality in a new way.[173]" Jackson and Messick write:

> *"Just as the unusualness of a product is judged relative to the norms and its appropriateness relative to the context, the transformation power of a product would be judged relative to the strength and nature of the constraints that were transcended".*[174]

According to Gilchrist[175] a creative product's transformation power should make an impact on human society and thought. She writes:
"At the highest level such products not only provide solutions to problems, but generate new problems and new fields of research".

7.2.4 Condensation/Simplicity:

As with the previously mentioned criterion, condensation as a criterion, is met only by the most highly creative of products. Condensation as criterion in products, provide for a multiplicity of interpretations and summary power. Such products "*offer something new each time we experience them*"[176]. Such products can be interpreted in intellectual or affective ways. It may be interpreted differently by different viewers or differently by the same viewer on different occasions. They continue:

> *"...multiplicity of interpretation and the extensiveness of the expansions generated by the condensation, are an indication of its summary power, and an approval of summary power provides an important judgmental standard for the evaluation of creative condensation."*

Barron[177] refers to this determinant of value or quality as '*aesthetic fitness or elegance*' while Poincare'[178] refers to it as '*the beauty and harmony that affects aesthetic sensibility*'. In

---

[173]P.W. Jackson and S. Messick, 'The Person, the Product and the Response: Conceptual Problems in The Assessment of Creativity,' Journal of Personality 33, 1965, p.6.

[174]op. cit., pp. 6-7.

[175]M. Gilchrist, The Psychology of Creativity, Melbourne University Press, 1972, p. 15.

[176]op. cit., p. 10.

[177]F. Barron, Creative Person and Creative Process, New York, 1969, p. 20.

[178]P.E. Vernon, Mathematical Creation; Creativity, Harmondsworth, 1970, pp. 77-78.

conclusion, Jackson and Messick also linked certain personal qualities of the creative person with certain properties of the creative response (criteria for judging products). These, although not scientifically tested, are summarized in Table 6, Appendix A.

7.3 THE CREATIVE PERSON

Another way of understanding creativity is by studying the qualities of the creative person. Without a creative person there can be no creative process or product. Creativity is also not synonymous with talent. Talent is an inherited gift which is:

> *"ephemeral, elusive, undefinable, unteachable and unlearnable ... Creativity on the other hand, is an acquired behaviour - learnable, teachable, tangible, and crucial to human development ...When a person possesses both qualities, however, great things may be in store".*[179]

I shall look at the creative person in two ways. Firstly, I shall delineate the salient qualities associated with the creative person and which effectively leads to creativity. Secondly, I shall consider the components or aptitudes for creative thinking. Since the characteristics of the creative person considered by Morris I. Stein[180] are too general for this thesis, the author wishes to focus rather on the qualities give by Alfred Balkin.[181] Balkin compiled and emended his qualities for the creative person, from Don Koberg and Jim Bagnall's **The Universal Traveller** (1972) and George Kneller's **The art and science of creativity** (1965). The creative person according to above-mentioned writers is:

1. a dealer in options, e.g. the jazz improvisor
2. a logical problem solver, but also one who can appreciate that something illogical can make sense, e.g. the perceptive teacher
3. a habit-breaker

---

[179]A. Balkin, 'What is Creativity? What is it not?' Music Educators Journal, Vol. 76, no. 9, May 1990, pp. 29-32.

[180]J.P. Guilford, 'Traits of Creativity,' in Creativity and its Cultivation, (ed.) H.H. Anderson, New York: Harper and Brothers, 1959, p. 160.

[181]A. Balkin, 'What is Creativity? What is it not?' Music Educators Journal, Vol. 76, no. 9, May 1990, pp. 29-32.

4. a constructively discontented person - in Piagetian terms, he or she is in a nearly constant state of disequilibrium with things as they stand
5. a divergent or off-the-wall thinker as well as a convergent or rational thinker
6. innovative
7 intelligent, i.e. all good teachers
8. aware in a heightened way, noticing what others do not, e.g. the great conductor
9. fluent and often verbally articulate, producing more ideas on a subject than the ordinary person
10. original, giving birth to ideas that are statistically infrequent for the population and that represent remoteness of association
11. often sceptical
12. confident, if not fearless.

The creative person also:

13. enjoys being off-centre
14. works with steady, unrelenting, unremitting obsession
15. is intellectually 'playful' and able to see the humorous side of a situation as a necessary emotional release, i.e. what every classroom music teacher should be
16. is unpredictable.

From Morris I. Stein's list, the following could be added:

17 is reserved, has little interest in interpersonal relationships
18. is intuitive and empathic
19. makes a great impact on others, which include criterion such as: clear-thinking, wide interests, versatile, alert and attractive.

Next I shall turn to the aptitudes of creative thinking. As was mentioned earlier the '*Mandala*' approach to music is a creative thinking in music approach. The *Mandala* approach will be explained along the lines of Webster's creative thinking in music model. This I shall explain in more detail in the next chapter. For now I shall consider J.P. Guilford's '*creative thinking*' aptitudes of creativity. Guilford considered creative thinking in the context of problem-solving, which he believed are closely related. Guilford sees problem-solving as:

a) a sensitivity to problems,
b) filling in gaps of knowledge or missing elements,

c) identifying difficulties,

d) searching for solutions and formulating hypothesis,

e) a way of using divergent thinking abilities and other factors of the intellect.[182]

For Guilford creativity is intertwined with the intellectual abilities and which operate at several levels. Creativity does not only operate at the highest level, when an entirely new principle or idea flourishes, but begins with expressive, spontaneous activity in children.[183] What is creative thinking? Guilford explains:

... *"it is possible to define creative thinking in a more definite way by reference to the Structure-of-Intellect".* (Diagram 10, Appendix B)

Guilford explains the Structure-of-Intellect model:

> *"The Structure-of-Intellect model is a three-way classification of known and conceivable human intellectual abilities or functions, represented by a three dimensional cubic design. Each dimension includes a set of categories, one for five kinds of operation, one for five kinds of informational content, and one for six kinds of products. Each ability is represented by a single cell, with its unique conjunction of three values on the three dimensions. Certain psychological relations determine the order of the categories along each dimension".*[184]

According to Guilford the S.I. abilities which are most relevant to creative thinking are:

a) **divergent production** in the operation category and,

b) **transformation** in the product category.

He believes that these abilities are important for creative thinking and that all other operations and products are secondary and sometimes incidental in the activity. Guilford's creative thinking aptitudes are as follows:

---

[182] E. Oehrle, A Case for Creativity in Elementary Music Education, Thesis submitted in partial fulfilment of the Ph.D.-degree, University of Natal, Durban, 1983, p.88.

[183] J.P. Guilford, The Nature of Human Intelligence, New York: McGraw-Hill Book Company, 1967.

[184] J.P. Guilford, Way Beyond the I.Q., Buffalo New York: The Creative Educational Foundation, 1977, p. 155.

7.3.1 SENSITIVITY OF PROBLEMS

This involves:

a) the ability to see problems,

b) judging that things are not all right and that goals have not been reached.

c) making evaluations (cognitive factor) as part of the operation ability of the S.I. -model,

d) divergent thinking.

7.3.2 FLUENCY OF THINKING

This is the ability to produce an abundance of ideas. Three types of fluency can be distinguished:

a) **Associational fluency**. This is the ability to produce as many synonyms as possible for a given word. Guilford believes that there is a close correlation between this ability and one's need for adventure and tolerance of ambiguity.[185] Fluency can be evaluated through word-association and idea-association tests.

b) **Expressional fluency**. This is the ability to put ideas into words. Guilford believes that high expressional fluency correlates with high creativity.

c) **Ideational fluency**. This is the ability to produce required ideas within a limited span of time.

7.3.3 FLEXIBILITY OF THINKING

This ability enables the person to '*disabuse*' his mind, by abandoning rigid ways of thinking and to substitute them for new ways of thinking. This could be the first step of moving out of one's paradigm. Two types of flexibility are:

a) **Spontaneous flexibility**. This ability enables the person to think freely and spontaneously about objects or things, e.g. in naming the uses of the letter 'H', the following might ensue; to form words with, rugby poles to kick over a ball, 1 - 1 = H.

b) **Adaptive flexibility**. This is the ability to solve problems by using unusual or extraordinary solutions. The person is encouraged not to use futile methods based upon learnings or mindsets, e.g. 'The Nine Dot Problem.'

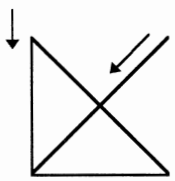
---

[185] E. Oehrle, A Case for Creativity in Elementary Music Education, Thesis submitted in partial fulfilment of the Ph.D.-degree, University of Natal, Durban, 1983, p. 84.

. . .
. . .
. . .

The reader is required to connect all nine dots with four straight lines and to go through each dot only once without lifting the pencil.

SOLUTION



Spontaneous and adaptive flexibility enables one to adjust or adapt more easily to new or changed circumstances.

7.3.4 ORIGINALITY

This constitutes the rare, unusual or novelty response or product. Originality, together with fluency and flexibility of thinking, also constitutes divergent thinking.

7.3.5 REDEFINITION

This ability involves interpreting familiar objects so that they or parts of them, could be utilized in a new way. This ability involves convergent thinking, i.e. finding one response/solution from many possibilities.

7.3.6 ELABORATION

This ability involves creating a more complex object from a simple source.

Guilford's implications for education are relevant to the '*Mandala*' approach:

> ..."*we now ask whether we have been giving these skills appropriate exercise. It is probable that we need a better balance of training in the divergent-thinking area as compared with training in convergent-thinking and in critical thinking or evaluation*".[186]

---

[186] J.P. Guilford, 'Three Faces of Intellect,' American Psychologist 14, 1959, p. 478.

Guilford emphasizes divergent thinking as prerequisite for creativity, but also maintains that convergent thinking is also involved. Thus, problem-solving includes both divergent and convergent aptitudes. For the '*Mandala*' approach I shall focus on divergent thinking and convergent thinking as part of creativity.

8. CREATIVITY IS THE PHILOSOPHY FOR TRANSFORMATION AND INTEGRATION.

In this section I shall scrutinize whether the philosophy of creativity is compatible with transformation and integration in education, i.e. a holistic view. In other words, does creativity lead to integration and transformation or fragmentation and conformity in education? Observations made by Jonathan Stephens[187] are especially relevant to this section. Stephens considers the apparent conflict between creativity and integration. Creativity, he believes, implies originality, imagination and independent thinking, whilst integration means bringing together, containing, presenting something as a unity. Stephens further believes that the conflict between divergent and convergent thinking is also reflected in the educational systems of Europe.[188]

In the South African old versus new educational systems (see Table 7, Appendix A), this conflict is also evident. A key concept of the new education system (outcomes-based education) is the holistic integration of knowledge, assessment, skills and values in education in order to promote analytical, critical, creative thinking and tolerance.

In the old system, the presence of individuality or the nonconformist behaviour was perceived as a challenge to the educational system and was suppressed. Stephens quotes F. Barron[189] to substantiate this point:

---

[187] J. Stephens, 'Metamorphosis: Creative and Integrated Teaching Methods in European Music Education,' British Journal of Music Education, Vol. 11, no. 3, November 1994, pp. 239-248.

[188] Education Information Centre (E.I.C.), Understanding The National Qualifications Framework: A Guide to Lifelong Learning, Heinemann Educational Publishers, 1995.

[189] J. Stephens, quoting F. Barron, 'Metamorphosis: Creative and Integrated Teaching Methods in European Music Education,' British Journal of Music Education, Vol. 11, no. 3, November 1994, p. 240.

> *"Suppression is a common way of achieving unity, however, because in the short run it often seems to work. Increasing complexity puts a strain upon an organism's ability to integrate phenomena; one solution of the difficulty is to inhibit the development of the greater level of complexity, and thus to avoid the temporary disintegration that would otherwise have resulted. Originality, then, flourishes where suppression is at a minimum and where some measure of disintegration is tolerable in the interests of a final higher level of integration".*

Stephens asserts that what is termed '*education*' often means conformity, emphasis on knowledge, skill-acquisition and instruction, i.e. fragmentation in education. Unity in education is being established through the suppression of creativity within individuals. Barron, however, reminds us that there is a '*higher level of integration*' which operates where originality and creative thinking are present. Stephens writes:

> *"...a creative artist not only imagines, constructs and analyses material, but also synthesizes ideas to create a unified experience. A work of art ...represents an integration of elements from a rich store of possibilities."*[190]

Of integration he writes:

> *"Integration includes the possibility of different elements co-existing, whilst retaining a sense of their distinctiveness in a community. There is also the dimension of a combination or amalgamation which creates something new and even stronger".*[191]

He warns that the awareness of differences between cultures should not lead to a separatist or divisive force [Apartheid syndrome], but that the interaction between cultures and approaches *"provides a more healthy, challenging and positive environment for development"*[192]. He uses the analogy of Smetana's '*Vltava*'[my country] which exemplifies dualism, e.g. the cold and the warm sources which interact and combine to form the river, the day and night scenes along the river's journey which, in the rondo structure, are further balanced with the rough passage

---

[190]ibid.

[191]ibid.

[192]ibid.

through the St, Johns Rapids, to the final two chords which conclude the work. Another example of the '*higher level of integration*' of creativity is the interaction acquired between Bohemian and Moravian sub-cultures within the Czech Republic. Bohemian means a creative person who lives an unconventional life. Moravian on the other hand, has strong ties with the church. Another case in point, is the symbolism of our South African flag and our new education system. The flag symbolizes the integration of the old and new governments, whilst outcomes-based education confluences old en new educational ideas and approaches prevalent in South Africa and abroad. Stephens takes pains in explaining, with reference to racial, ethnic and religious factors, the difficult process of acquiring the 'higher level of integration' through creativity. His advice is:

"A creative approach to the subtle interaction between various elements to make a vibrant, interesting whole should guide us in our deliberations."[193]

Of course, the new situation should be clear and acceptable to all. Stephens concludes that the 'higher level of integration' should form the basis of a new creative philosophy of education. With regards to transformation, Stephens uses the analogy of the caterpillar which transforms into a butterfly and Smetena's *'Vltava'*, where the cold and warm streams with the day and night scenes change into a river. He writes:

> *"Understanding is development through discovering, experimenting, playing, failing and succeeding. The process of transformation or metamorphosis is fundamental to creative development. Just as the composers Mahler and Schnitke, for example, are able to transform simple folk-like melodies by placing them in different contexts, so creative ideas applied in different situations are able to transform the way that curricula are devised and content delivered".*[194]

Stephens, thus, proposes an organic structure model for the integration via creativity. This organic structure should grow from the convictions of its ideas as a response to areas of perceived commonality, and should not be imposed by political or educational leaders. In South Africa, however, the Reconstruction and Development Programme has inter alia, the facilitation of creativity and integration as aims.

---

[193]op. cit., p. 241.

[194]op. cit., p. 247.

In conclusion, (Table 8, Appendix A)[195] encapsulates the *Mandala* justification for transformation and integration in education.

SUMMARY

In this chapter I have attempted to highlight the complexity and perplexity of defining and using the term creativity. Numerous definitions were cited by researchers in burgeoning literature over the years. These range from highlighting creativity as a product, as a process or person and most recently as a new way of critical thinking.

The position taken by the researcher is that creativity is a way of thinking and acting to produce something new by a **creative doer**, and that creativity is a **universal dormant personality skill**, which is **teachable**, **learnable** and can be **acquired by all**.

The creative philosophy for the '*Mandala*' approach to music, which is argued for, considers creativity as a condition of knowing. Such a condition encapsulates the creative doer, creative process, creative product and creative thinking in an interactive problem-solving and eclectic way.

Whilst many approaches to the creative process were discussed, I have highlighted the self-actualization approach, compatible to a creative philosophy for transformation and integration in education.

Creativity as a condition of knowing, is also not antithetical to a holistic philosophy of the '*Mandala*' approach. Yet, the kind of unity or integration creativity in the '*Mandala*' approach should aspire to, is not tantamount conformity, but a higher level of integration which is symbolized by Smetana's '*Vltava*' and our South African national flag.

Whilst this researcher embraces Wallas' four stages of the creative process, i.e. preparation, incubation, illumination and verification, these operate not in a step-wise manner, but rather in an interactive Mandala or cycle.

In order to become creative, schools have to embrace, identify and encourage personality skills such as originality, flexibility, fluency, elaboration and redefinition of material.

---

[195] op. cit., p. 239-248.

The creative product, on the other hand, should possess evaluation criteria of unusualness, appropriateness, transformation or transcendence and condensation or simplicity.

Creativity is further not only limited to the Arts, but is part of our humanity and needs to be encouraged, in the interest of our gaining wholeness as human beings. The fragmented nature of our education should be substituted with a holistic approach.

CHAPTER 3

THE '*MANDALA*' PRACTICAL TEACHING APPROACH TO MUSIC EDUCATION

INTRODUCTION

The '*Mandala*' approach revisits, renews and rethinks many of the music teaching ideas used by music educators over the past twenty years in South Africa and abroad. Many of these ideas, however, were presented in a hap-hazard, disjointed or fragmented manner, without any cohesive or big picture rationale or justification in mind. To a certain extent these fragmented and hap-hazard approaches, together with financial and other constraints, exerted enormous stress upon the *psyche* of music education, so that we in fact need unity or a holistic approach to music education. Further, many of these past approaches to teaching music in schools exclusively and intentionally embraced the narrow conceptions and principles of aesthetic education, the latter in essence being an extension of the foundationalist Western ideology.

MUSIC EDUCATION THROUGH THE '*MANDALA*' APPROACH

The following 7 principles capture the essence of the '*Mandala*' approach to music education.

1) Music making is problem-focused learning.
2) Music making is a creative thinking process.
3) Music making is creative-action-learning.
4) Music is a holistic cultural phenomenon, implying integration with all subjects.
5) Music making is a selfactualizer.
6) The knowing musician in class.
7) The intercultural role of music.

1. MUSIC MAKING IS PROBLEM-FOCUSED LEARNING

With music as Aesthetic education, the pupil is often disengaged from real music making, because of the preoccupation with listening as an activity within music lessons. The '*Mandala*' approach defines musical action in terms of real music making, i.e. composing extracts for an operetta, advertisements, film, etc., as well as performing/improvising the operetta composed,

or performing the music of the film and knowing music through analysis of compositions and performances. With music education as aesthetic education, school concerts often portray pupils as objects of art, i.e. they have to 'perform' or rather imitate or duplicate as accurately as possible, what the teacher or other authority regards as acceptable for children. The school concert mentioned above could, for example, comprise actual music composed and performed by pupils (with the assistance of teachers) in the music classes. The '*Mandala*' approach to music views music as an act of the creative '*self*', which is verbalized through 'knowing' in music, i.e. critical thinking in action. It means to be involved with real or authentic music making 'in situ', as an act of the '*self*'. The '*self*' is *'tout court'*, being inextricable with this world and responsible for its destiny. Actual lessons of the '*Mandala*' approach will be illustrated (see Appendix C).

As part of problem-solving musical expressiveness is an important task of music education. How should this be done? Elliott explains:

(a) select works that contain musical expressions of emotion.

(b) target students'/pupils' attention to instances of musical expression.

(c) present pupils with interpretive problems of musical expression to be solved artistically in performance projects, composition projects, or arranging projects.

(d) provide models of expressive music making for students / pupils on a regular basis.

(e) compare and contrast recorded examples of expressive and non-expressive music matching.

(f) offer formal knowledge about specific instances of musical expression.

The above accordingly, are all things to do, depending on the specific practice and piece of music involved.

Teach that musical designs and performances of some musical works include musical representations of various aspects of this world. This could be done by presenting students / pupils with problems of musical representation to solve in performance, composition, improvisation, arranging, and conducting projects. Teachers or learners should, however, not assign representational descriptions to all music everywhere.

Decisions on the musical practice and musical challenges include:

(a) interpret and perform a Baroque work

(b) interpret and perform a Jazz work

(c) compose and improvise melodies according to the Jazz practice selected in (b)

(d) interpret and perform a Zulu song

(e) refine the performance of (a) while learning to conduct this piece.

2. MUSIC MAKING IS A CREATIVE THINKING PROCESS

In the previous chapter on creativity, it was illustrated that the creative process and the creative product constitute creative thinking. Creative thinking should not be seen within the context of *'Cognito ergo sum'* (I think therefore I am), but rather in terms of a thinking and doing to constitute *'knowing'* in music. The substitution of the term creativity with creative thinking is compatible with the '*Mandala*' problem-solving approach to music and Elizabeth Oehrle's[196] *'education through music'* perspective. That creativity refers to both thinking and problem-solving and not only in terms of produced products, frees people to act creatively to solve problems. Personal growth and the development and enrichment of the '*self*' through tangible creative products, are important for the self-esteem of the person in order to solve musical problems effectively. The M.C.T.-Model (Diagram 3, Appendix B) (based on the theoretical research by J.P Guilford and E. Paul Torrance[197]) will be used as basis for the ensuing discussion.

2.1 MUSICAL IMAGINATION

According to Webster[198] the ability *"to think in sound"* is a musical ability. It is the ability to 'hear' a melodic line without singing or playing it. *'Imagining'* sound before playing the actual sound is important for creative thinking in music. Creative thinking in music also means to think not only convergently (tasks designed to yield a single right answer), but chiefly divergently (several possible answers or solutions to problems). Musical imagination (creative thinking) is often neglected or ignored in schools in favour of factual or skill- oriented thinking. Factual or skill-oriented learning requires convergent thinking, whilst the imagination promotes divergent

---

[196] E. Oehrle, 'A South African Perspective,' in Music Education: International Viewpoints, (ed.) Martin Coute, Martin Coute, 1994, pp. 133-138.

[197] E. Paul Torrance, 'Can we teach Children to be Creative?' Journal of Creative Behaviour 6, no. 2, 1972, pp. 114-143.

[198] P.R. Webster, 'Creativity as Creative Thinking,' Music Educators Journal, Vol. 76, no. 9, May 1990, pp. 22-28.

thinking. Musical imagination can effectively be developed through composition/ improvisation, although performance and analysis (written and reflective listening) also involve musical imagination. Hollis Thoms[199] writes:

> *"To be a composer means being ready to transform experience into significant sound images. It also means that one has such a driving desire and compelling need to manipulate sounds that it becomes an obsession."*

Thinking in sound (covert 'thinking-in-action') or imaginative problem-solving could be promoted by the following types of questions:

"Imagine how the composer might have changed the ending to sound more tentative. How could this be done?"

"Can you think of another accompaniment pattern for that melody? Play it for me"

"Clarinets, imagine what that fugue subject would sound like if it had been written a century later."[200]

2.2 PRODUCT/THINKING INTENTION.

According to Diagram 3, Appendix B, the thinking-in-action or practical thinking, of the creator, i.e. performance, composition and analysis (written and reflective/active listening), are the source of creative thinking, as well as the intended goals. Stated another way, a musical problem or challenge is tantamount to the musical product or solution. Divergent and convergent thinking which are products of action-learning and the use of the imagination, succinctly culminate into creative products.

2.3 ENABLING SKILLS

The problem-focused nature of the '*Mandala*' approach presupposes that it is possible to acquire intellectual abilities or skills while acquiring knowledge. These skills, (see the structure-of- Intellect Model of Guilford) form the basis of musical intelligence and interact with the thinking process in a rich variety of ways. For the '*Mandala*' approach I propose the following enabling skills for creative thinking to occur. Amongst others:

a) Convergent thinking skills (know-how), such as the ability to recognize **tonal and**

---

[199] T. Thoms, 'Encouraging the Musical Imagination through Compostion,' Music Educators Journal, January 1987, pp. 27-30.

[200] P. Webster, 'Creativity as Creative Thinking,' Music Educators Journal, Vol. 76, no. 9, May 1990, pp. 22-28.

rhythmic patterns (imagery, i.e. thinking in sound and rhythm) and **musical syntax** (sensitivity to the musical whole, the ability to shape musical expressions in a logical manner according to patterns of musical repetition, contrast, and sequencing). These skills I call products of the musical imagination which are both inborn and educable. Competent and expert listeners have the ability to use musical imagery while listening, e.g. a previously heard and remembered musical pattern. **Musical imagery** helps the person to make accurate comparisons between real, remembered and imagined musical patterns within the bounds of a given practice and style. It also engages the person to predict, hypothesize or anticipate musical sounds of a musical work they wish to identify with. Elliott believes listening for musical images, goals and standards of a musical practice is synonymous with making music well. Musical imagery (aural imagining-in-action) is a key part of supervisory musical knowledge and is a kind of heuristic imagination.

How do pupils acquire supervisory musical knowledge?

(i) by encouraging pupils to apply their powers of attention, cognition (including aural imagination) and musical memory during musical problem-solving, in the context of music making.

(ii) by encouraging students to reflect verbally about what there is to interpret, express, and listen for in specific works (even the more subtle details of musical works).

b) Divergent, imaginative skills which Webster regards as important for creative thinking to ensue are **musical extensiveness / fluency** (the amount of time invested in creative imaging to pose many solutions or ideas), **flexibility** (the range of musical expression in terms of dynamics, tempo, and pitch), and **originality** (unusualness of expression). These skills according to Webster are inborn although they could be improved or developed with training.

c) Another enabling skill is procedural conceptual understanding (*'formal knowledge-in-action'*), the **knowledge of facts** which form the substance of musical understanding (knowing **about** music). Conceptual understanding can be divided into *craftmanship* and *'situated cognition'*. Craftmanship is the ability to apply factual knowledge about music in the service of a more complex musical task (composing, performing and analysis), to produce *knowing* in music. Situated cognition develops from being inducted into a musical practice. Situated cognition enables the musician to understand and enjoy a context-specific musical practice. Procedural conceptual understanding is a convergent thinking process.

d) **Musicianship**, i.e. formal, informal, impressionistic and supervisory musical knowledge, I regard as another enabling know-how for creative thinking. Musicianship, with the exception of formal knowledge, is a divergent form of thinking. Musical flexibility, originality and extensiveness (which are inborn) can, however, be promoted considerably through musicianship. Further, the stages of musical creativity, i.e. preparation, incubation, illumination and verification are inextricably connected with musicianship, e.g. to be able to move from preparation to illumination, obviously involves the application of **formal knowledge**, **experience**, **intuition** and **evaluative** musical skills in an interactive manner.

e) Other thinking aptitudes which are both divergently and convergently employed are **sensitivity of problems** (divergent), **redefinition**, i.e. the ability to reinterpret familiar products or ideas so that they could be utilized in a new way (convergent thinking) and **elaboration**, i.e. the ability to create a more complex product from a simple source (convergent).

2.4 ENABLING CONDITIONS

Enabling conditions are non-musical, yet they are vital for the creative thinking process. Enabling conditions include motivation (the internal and external drives that keep the creator at task), subconscious imagery, environment and personality.

Internal motivation will be referred to as *'artistic intuition'*, which is innate and possesses the creator from the primordial thought to the completion of the product. *'External motivation'* includes motivation from persons (teachers), a begging need to solve a musical problem, etc.

'Subconscious imagery' is linked to the incubation stage of the creative process, which operates unconsciously, while informing the creative process during times when the creator is consciously occupied with other concerns.

'Personality' refers to traits such as, risktaking, spontaneity, openness, perspicacity, sense of humour and sense for complexity which exist in many creative people.

'Environment' refers to the host of conditions which influence the creator while working and the creative process, e.g. financial support, family conditions, musical instruments, acoustics, media, societal expectations, peer pressure, etc.

The *'cultural context'* refers to the cultural and social context of a specific musical practice.

2.5 THINKING PROCESS IN THE CENTRAL CORE

The thinking process at the core of the '*Mandala*' approach to music is a creative one, and will be referred to as the *'Creative Interactive Problem-solving Core'* (C.I.P.C). This central core of the '*Mandala*' approach indicates movement between divergent and convergent thinking in an interactive manner. It consists of the four basic stages postulated earlier (Wallas), to constitute problem-solving, i.e. **Preparation**, **Incubation**, **Illumination** and **Verification**.

Since the '*Mandala*' approach defines creativity in terms of thinking and acting unconsciously and consciously (not necessarily conceptually apart), and therefore integrated to constitute the condition of knowing in music, Webster's core has been considerably emended. On the other hand Myesky's model of creativity fits neatly (with modifications) into this core.

Preparation juxtaposes **guessing**. This stage involves playing with ideas, exploring alternatives, speculating with possibilities and utilizing the imagination. Part 1 is obviously connected with certain divergent enabling skills such as flexibility, originality, fluency and certain convergent enabling skills such as tonal and rhythmic imagery and musical syntax. Musical syntax is closely related to situated cognition. Guessing, after a period of withdrawal (incubation) leads to the **discovery** of original ideas, answers and solutions to problems (illumination).

The incubation stage of the C.I.P.C, is closely related to the enabling condition of subconscious imagery. The subconscious imagery and therefore the stage of incubation, are both products of divergent and convergent thinking in music. The same could be said about both the stages of illumination and verification.

Part 2, involves both **evaluation** and proving. Evaluation involves evaluating discovered ideas, testing discovered solutions, judging discovered answers and analyzing the results. Evaluation corresponds with the stage of verification as part of the C.I.P.C - model.

The **proving** part of creative thinking is paramount and involves proving acceptable ideas, satisfactory answers and workable solutions. Proving is closely linked to the stage of verification in the C.I.P.C - model and corresponds with Parnes's *'acceptance-finding stage'* and Stein's *'communication of results stage'*, mentioned in chapter 2. Ideas, answers and solutions

to musical problems should be acceptable before implementation.

Compositions, performance and analysis should be acceptable after thorough verification, evaluation and proving processes. Musicians prove their creativity when performing music artistically. Composers prove their creativity when composing music. Likewise, children should also be given opportunities to prove and display their creativity through either performance, improvisation, analysis or by composing their own music. Children should be given opportunities to evaluate music and musical experiences in order to develop musical *'know-how'*. They should be given the opportunity to test their discovered understandings of music through either performance, improvisation, analysis or composition. Through induction and immersion, i.e. living different musical ways of life, pupils will understand the significance and meaning of music.

An important implication for music education is shown in this model. The environment which encourages convergent thinking in music, is just as important as the environment which encourages divergent thinking in music.

3. MUSIC MAKING IS CREATIVE-ACTION-LEARNING

Music education, should coalesce around *creative-action-learning*, so that music education becomes the core of our school curriculum. In chapter 2 it was stated that creativity constitutes thinking and doing acts, which consists of three components, i.e. the creative doer (person), the creative process and the creative product. The three components of creative acts (doer, process and product) form the basis for structuring music creative-action-learning. However, one should always bear in mind that these components should not be taught as atomistic entities, i.e. the whole is more important than the sum of its parts.

3.1 OBJECTIVES FOR CREATIVE ACTION LEARNING

Objectives for creative-action-learning cannot be predetermined by the teacher. When the teacher asks the student to compose an ostinato, bordun or construct a sound composition, she/he does not have in mind a single correct response or solution. Objectives for creative-action-learning I will refer to as 'action objectives'. Action objectives determine some aspects of the learning encounter or outcome, but not the outcome or encounter itself. Action objectives can be derived from the three components of creativity, i.e. person, process or product.

3.1.1 PERSON ACTION OBJECTIVES.

This refers to personal characteristics which a person uses when involved with creative-action-learning. Such traits are: originality (the ability to produce unusual or uncommon responses), fluency (producing as many possible responses to a problem), flexibility (the ability to produce many different responses to a problem), elaboration (creating a complex object from a simple source), redefinition (reinterpreting familiar objects to be utilized in a new way) and sensitivity to problems. The creative person utilizes these skills when involved in performing or improvising, composing or analysing music. The person component suggests the following long term goal:

students will approach [action-learning],
i.e. composition/improvisation, performing
and analysis, in a creative manner.

The latter goal suggests a certain attitude or behavioural predisposition required from students, i.e. openness to solve musical problems, imaginative and musical independence.

Examples as quoted from John Kratus[201] are:

i) Objectives for originality:

"each student will improvise and repeat a two- measure ostinato different from other students' ostinatos". "small groups of students will invent unusual and unique instruments and compose short sound compositions for them". "given a short Étude, each student will perform it using dynamics unlike those intended by the composer."

ii) Objectives for fluency:

"given the first phrase of a song, each student will compose as many second phrases as possible" "given an assigned piece, each student will phrase the melody in as many ways as possible".

iii) Objective for flexibility:

"as a group, the class will compose a theme and three variations, with each variation being as different from the others as possible"

[201] J. Kratus, 'Structuring the Music Curriculum for Creative Learning,' Music Educators Journal, May 1990, pp. 33-37.

iv) Objective for elaboration:

"small groups of students will compose a theme and three variations, with each succeeding variation being more complex than the last"

v) Objectives for expressiveness:

"each student will improvise on the xylophone music to express spring, summer, autumn and winter." "each student will perform the assigned piece once to express sorrow and once to express joy"

Person objectives can be sequenced as follows:

a) Increase the difficulty of the music performed steadily.

b) Combine two or more person objectives in a single one.

c) Vary the level at which decisions are made, i.e. from the class to the small groups, to the individual student.

3.1.2 PROCESS ACTION OBJECTIVES.

The process action objectives refers to HOW creation occurs. According to the M.C.T Model the characteristics of creation are guessing, problem-finding, exploring ideas, aleatoric, modification, evaluation, etc. Composition/improvisation, performance and analysis all utilize these characteristics of creation. A goal derived from the process component is:

students will express themselves musically, [within the context of real-life experiences], through improvisation, composition, creative performance and analysis.

The emphasis of this goal is *'how to'* engage in action-learning or to express these real-life experiences. In order to create, students must have the *'know how'*.

Process objectives describe the action learning that students are expected to engage in (*'how to'*). The '*Mandala*' approach utilizes the following process-action-learnings: precreation, improvisation/composition, performance and analysis.

i) Objectives for precreation.(exploration)

During precreation the child explores and experiments with sounds or instruments until she/he can audiate(hear inwardly with meaning). The teacher can facilitate the process of audiation, by limiting and later increasing the material at the pupil's disposal, e.g. remove all except 3 bars of the xylophone. More bars can be

added as the child shows signs of audiating music. An example of such an objective is:

each pupil will explore combinations of sounds on a five-bar pentatonic xylophone for two minutes.

ii) Objectives for Improvisation/Composition.

The pupils who can improvise or compose, have mastered the ability to audiate. Improvisations at first are pattern- dominated and as pupils become more adept with improvisation, they structure and control it better. An example of such an objective is:

while the class sings 'La Bamba', small groups of students will improvise with hand drums, using rhythm patterns from song.

Composition is linked to precreation, improvisation and analysis. Composition, is finding connections between sounds (precreation), using musical patterns (improvisation), performing the created music (performance) and analysing, evaluating and reflecting critically the created sounds (analysis). Kratus[202] also refers to improvisation as "simultaneous composition" (Elliott calls it think-in-action at a rapid tempo) and composition as "reflective improvisation". Objectives for composition are:

> ***given a simple melody, each student will think of a way to change the melody slightly. Given a choice among four phrases, each pupil will select the phrase he or she likes best and explain why it best fits the phrase of a two-phrase song.***

More advanced examples are:

> ***each pupil will compose a short theme [for film] and then develop the theme at the piano into a longer composition.***

iii) Objectives for performance.

Process action objectives for creative performance encourages pupils to play a piece of music in several different ways and selecting the one that best compliments the music. Like composition, improvisation and precreation, the pupil has to make choices, think critically and make decisions. Examples are:

> ***each student will perform a piece at three different tempi and select the most appropriate tempo for performance. Each pupil***

[202] op. cit., pp. 33-37.

will perform a piece using his/her own approach to phrasing and rubato. Each pupil will perform his/her piece in three different major keys, i.e. C,G,F - major.

iv) Objectives for analysis

Listening within the 'Mandala' approach means active or reflective listening in music. Listening also forms part of Analysis, Performance and Composition/Improvisation and should not be treated in isolation from active music making. In other words listening is central to music making and is therefore active-learning in music not passive listening about music. The ability "to think in sound" (audiate) is the ability to "hear" a melodic line without singing or playing it. "Imagining" sound before playing the actual sound is important for creative thinking in music and an important prerequisite for composition and performance.

The development of active listening should form part of all active learning concerned with performance, composition/improvisation and analysis.
Listening covers all those occasions on which children listen critically to their own and others' music as part of composing, performing and analysis. Listening includes talking about music and responding to music with movements as a means of understanding its structure. The music selected should include music of different times and places and lead to knowledge of historical, contemporary styles and cultural traditions. The following serve as examples:

A first grade class listen together to a piece of electronic music which uses all sorts of different sound events and qualities of sound in lines, swoops and bursts. They discuss what happens in the music with the help of a score which the teacher has built up in front of them using coloured sticky paper (pictograph). Later they make a movement sequence to go with it. A grade five class can follow the same music and make their own pictograph of the music using coloured paper/newspaper cutouts.

Two children listen to a performance of a Xhosa song or mbira player. They demonstrate and report back to the class on the different rhythms, speeds, moods of the dances and the kinds of steps and gestures that the music suggests. They later play another Xhosa song on recorder/pennywhistle and percussion instrument (drum).

The class should after the performance report back and demonstrate rhythm, pitch, meter, moods, etc.

3.1.3 PRODUCT ACTION OBJECTIVES.

The product action objectives have to do with the end result of creative learning. According to the M.C.T-model the thinking intention is the same as the creative product, i.e. we start with musical problems so that thinking and action coalesce around musical problems/products (composition/improvisation, performance and analysis). A product goal would be:

Pupils will demonstrate an understanding of musical elements (rhythm, melody, timbre,dynamics) and musical principles (repetition, development, contrast) by performing , composing/improvising and analysing music.

The emphasis of this goal is that students learn how music works (knowing) by concentrating on the musical syntax, or structure of the music, in the context of action learning. A larger action-goal such as, learning how to interpret and perform a Jazz work may include a sub-goal such as, learning how to interpret the melodic expressions of sadness in a Romantic choral work or learning how to perform Jazz swing authentically.

These objectives include an understanding and application of musical elements, principles and musical organization or syntax (meter and tonality) as aspects of musical products. Through action learning the pupils apply their understanding of musical elements and syntax to real life music experiences. Composing a song in duple time is an indication of understanding musical syntax which according to research studies of children's compositions and improvisations, increases with age until age eleven[203].

The 'Mandala' approach opposes the dissection characteristic of the aesthetic approach, i.e. musical elements (rhythm, meter, tempo, phrasing, etc.), principles (repetition, imitation, development and contrast) and syntax (meter and tonality organization) are stated as product objectives. Musical elements, principles and syntax should be taught and learnt within the context of performance, composition/improvisation and analysis and not as isolated objectives in themselves.

Action learning is based on real life musical experiences of pupils which connect the feelings, ideas and experiences of pupils with their learning. These ideas, feelings and experiences are

---

[203] J.W. Flohr, 'Young Children's Improvisations: Emerging Creative Thought,' The Creative Child and Adult Quarterly 10, no. 2, 1985, pp. 79-85.

posed by both teacher and pupils as musical problems to be solved.

The product objectives for the '*Mandala*' approach will be the product intentions, i.e. composition/improvisation, performance and analysis and not the aspects of them. The examining, experimenting, and exploring of musical elements, principles and syntax can rather form part of the precreative stage of creativity, i.e. as part of process objectives, or the precreative stages of product objectives, i.e. composition, performance or analysis, or they can feature as ancilliaries to genuinely created musical products. Examples of such product objectives are:

i) Product objectives for composition/improvisation and performance.

the class will compose and perform a song, with contrasting sections (principles) in ternary form (A.B.A.), using duple time(syntax) and with a chosen rhythmic pattern (musical element). Pupils construct sound compositions, with one section based on an unpleasant experience/feelings and the other on happy/pleasant feelings/experiences (variation of the first example). President Mandela has arrived in Worcester. Compose/ improvise and perform your own welcome song. (1 minute) compose and perform your own music for a T.V - advertisement. (30 seconds).

Such an approach is also proposed by Regelski[204] and Schafer[205]. The '*Mandala*' approach does not emphasize the teaching of musical concepts/components, since concepts/components are ongoing processes, not finished products.

ii) Product objectives for performance.

given the song 'Oh Susanna' (Stephen Foster), pupils will perform two different interpretations of it. Use different instruments per phrase. Improvise an ostinato for each section and write the new notes of the concluding phrases down.

---

[204] T.A. Regelski, 'A Sound Approach to Sound Composition,' Music Educators Journal, May 1986, pp. 41-45.

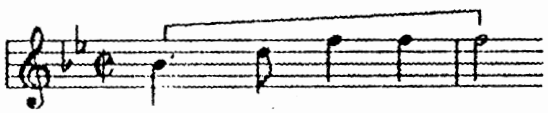
[205] M. Schafer, Creative Music Education, Schirmer Books, 1976, pp. 95-157.

iii) Product objectives for analysis and performance.

The intellectual abilities which analysis (within the context of performance and improvisation) should emphasize are: fluency, flexibility and elaboration. Examples adapted from Feinberg[206] are:

For fluency: ***"before listening to the following music example (the opening section from Schubert's Symphony No.5 in B-flat), describe [and perform] the different ways you think the main motif could be used in the music. [also write out the main motif (stop recording after example 1)]"***

EXAMPLE 1



"three different themes will be played for you [by the teacher or student/pupil]. After listening to them, pick out two that you think were written by the same composer and [write down] or explain how they are related". "I will play two themes for you. If you were asked to compose a bridge connecting these two then how would you organize such a passage.[Perform or improvise your choice]"

For flexibility: ***"after listening to the following composition ("Chester" from Schuman's 'New England Triptych'), write down a series of questions that you think relate to what you heard. Remember, the more areas you touch on in your questions, the more flexible you are thinking". "while listening to the following work (the second movement of Hindemith's Symphonic Metamorphosis of Themes by Weber), place a check after any of the music qualities listed on your "Aural Flexibility List"[207] (see Figure 1, Appendix C), whenever***

[206] S. Feinberg, 'Creative Problem-solving and the Music Listening Experience,' Music Educators Journal, September 1974, pp. 53-60.

[207] These lists should support performance, improvisation or composition and not taught as aims in isolation.

they reappear in the music. Each section will be indicated to you. Don't get "stuck" on any one quality."[Perform some of these musical qualities by referring to known works] "after listening to two different recordings [or live performances] of the same composition (the finale from Bartok's Concerto for Orchestra), describe what you think the second conductor did that was different from what the first conductor did. Which version did you find more satisfying? Why?"[Perform, improvise or compose two different interpretations of a song or instrumental work]"

For elaboration: This creative thinking behaviour concerns generating step-by-step procedures to solve a particular problem. ***"listen to the music up to ...(the gong at the end of Tchaikovsky's Symphony no.2 in C-minor ["little Russian"]). Keeping in mind what you have heard, describe, [perform/improvise] how you would bring this work to an end." "refer to your "Music Qualities List"[51] (Figure 2, Appendix C) and write down the number of those qualities you think could be used to depict each of the following scenes (an approaching storm, the storm itself, the end of the storm). [Perform, improvise or compose any of the above mentioned scenes]. While listening to this selection (the fourth movement from Beethoven's Symphony no. 6 in F major) circle the numbers of those qualities that were used by the composer to give an impression in music of these scenes."***

The following lesson format (Figure 3, Appendix C), is a problem-solving format for the '*Mandala*' approach. This format has been adapted from Wallas's stages of creativity and Elliott's 'curriculum as practicum'. These stages are the preparation and planning stage, teaching and learning stage and synthetic and evaluation stage. The Preparational stage consists of the stating, identifying or generating of person, process and product problem-solving or action objectives or goals and initial explorations (orientation sub-stage). The Teaching and learning stage, consists of finding possible solutions by inducting pupils into musical practices, as well as musical actions, transactions and interactions between facilitator and learner. Analyzing, reflecting, renewing, rethinking and evaluating materials or musical challenges are part of this stage. The Synthesis and evaluative stage is the culmination of the

previous stages, where acquired knowledge, skills and solutions are applied to produce real life musical experiences and products, as well as critical evaluations of lesson descriptions and interpretations of actions, interactions and transactions.

4. MUSIC IS A HOLISTIC CULTURAL PHENOMENON

The '*Mandala*' approach to music is a holistic and therefore, humanistic approach to music. The integrated context of the '*Mandala*' approach has been encapsulated in Diagram 11, Appendix B.

A holistic cultural music approach acknowledges that music is essentially rooted in a culture and therefore should reflect and express that specific culture. It acknowledges that the teaching of music per se, is sociologically and context specific. A sociologically perspective of music education should reflect a pluralist rather than a universal epistemology and philosophy for music. The 'musician/performer/composer-self' does not operate as a free floating acontextual entity without any cultural connections. Everything musicians do in and through music is embedded in the culture specific. Teaching world music should therefore start with the learner's own culture specific music practice while at the same time exploring common links and influences of other music cultures. Finding the common denominators between music and culture (subjects) and between different music practices (western and non-western music) are crucial in the pursuit of intercultural or world music. Music of 20th century composers such as Cage, Stockhausen, Bartok, Reich and Messiaen elicits influences or links between western and non-western music. Walker writes:

> *"... Cage was influenced by Zen and gamelan, Stockhausen by Japanese gagaku, Reich by the gamelan, Messiaen by Bird calls, Bartok by indigenous music, ..."* [208]

Consider some actual examples of integrating music with other subjects as proposed by Joanna Glover and Stephen Ward[209].

---

[208]R. Walker, 'Music Education Freed From Colonialism: A New Praxis,' International Journal of Music Education, no. 27, May 1996, p. 13.

[209]S. Feinberg, 'Creative Problem-solving and the Music Listening Experience,' Music Educators Journal, September 1974, pp. 166-183.

4.1 Music and science.

The link between music and science is ***'sound'*** itself. In music sound is the raw material needed to create compositions, performance or analysis. The creative doer manipulates or intends 'to do things' with it. Glover and Ward writes:

> *"Control of sound is needed in order to 'sculpt' with it, to use it expressively and to use it as a form of interaction".*[210]

In science, sound is a form of energy which partly explains the nature of the world. The common denominator is ***'getting involved with sound'*** or ***'getting interested in sound'***.

An example of such a lesson has been adapted for the '*Mandala*' lesson format (see Figure 4, Appendix C). Glover and Ward assert:

> *"It is important that children are given the opportunity to work the sounds into music in their own way. The teacher should help the children to focus on the musical use of sounds:* ***'make sounds into music'"***[211]

4.2 Music and mathematics.

The common denominator is ***'number'***, i.e. an abstract concept such as number, becomes audible. Glover and Ward assert:

> *"If sounds are thought of as 'sense objects' the patterns and structures of pure music are mathematical patterns made audible."*[212]

Linking music with mathematics also means exploiting concepts which are both mathematical and musical. The following examples highlight the link (Figure 5, Appendix C).

4.3 Music, history and geography

Music belongs to a ***'people, time and place'***, i.e. music is contextual. Geography and history are linked for children in the otherness of the time and the otherness of the place. Through music children can learn about other cultures in the pursuit of a genuine 'world-view' of music. Glover and Ward write:

> *"Children should encounter directly the music of other cultures and*

---

[210] J. Glover and S. Ward, Teaching Music in the Primary School, Cassell, London, 1993, p. 166.

[211] op. cit., p. 167.

[212] op. cit., p. 168.

> *this should go beyond simply listening. They should be able to engage with it, perform it, analyse it and compose using features of it."*[213]

The common denominator is therefore people, time and place. In the South African context, children should understand different musical traditions, by engaging in them, performing them, analysing them and composing using features of them. This will inevitably mean doing some research in order to find the links between music, history and geography. The following lesson serves as an example of such a lesson. (Figure 6, Appendix C)

4.4 Music and art.

A holistic approach to music has to consider the relationship or links between music and the rest of the art family (visual art, drama, dance, literature, etc.) Wagner's *'Gesamtkunstwerk'*, Schafer's *'studies in sensitivity and expression'*[214], Morrette Rider's[215] *'basic literacy in the arts'(artistic literacy) or 'art education'* as well as writers such as Abbs[216] and Ross[217], all advocate integration of the arts. R. Murray Schafer writes:

> *"For the child of five art is life and life is art. Experience for a child is a kaleidoscopic and synaesthetic fluid. Look at children playing and try to delimit their activities by the categories of the known art-forms. Impossible. Yet as soon as those children enter school, art becomes art and life becomes life. They will then discover that 'music' is something which happens in a little bag on Thursday morning while on Friday afternoon there is another little bag called 'painting'. I suggest this shattering of the total sensorium is the most traumatic experience of a young child's life."*[218]

---

[213] op. cit., pp. 170-174.

[214] R.M. Schafer, Creative Music Education, Schirmer Books, 1976, pp. 231-234.

[215] M. Rider, 'The Importance of Music and the Arts to the Higher Education Curriculum of the Future,' in (ed.) Jack P.B. Dobbs, Music Education: Facing the Future, International Society for Music Education, University of Canterbury, 1990, pp.64-67.

[216] P. Abbs, Living Powers, Lewes: Falmor Press, 1987.
P. Abbs, The Symbolic Order, Lewes, Falmor Press, 1989.

[217] M. Ross, The Arts: A Way of Knowing, Oxford: Pergamon, 1983.

[218] R.M. Schafer, Creative Music Education, Schirmer Books, 1976, p. 232.

An obvious connection between music and art is to listen to music and then to paint the story. The problem with this type of connection, however, is that music will always be understood in the context of 'programme music'(music which tells a story). This type of connection limits the child's musical experience and interpretation. Glover and Ward propose, that since music and art do not '*touch each other*' in the same way that music touches mathematics or science, they should be planned in the context of a theme or topic. The following lesson serves as an example of linking music and art. (Figure 7, Appendix C).

4.5 Music and Language.

There are many links between music and language as explained by Glover and Ward[219], e.g.

a) when a text is set to music there is an intricate relationship between the rhythmic and metrical pattern of words and music.
b) musical and linguistic patterns are intertwined.
c) children's early speech is *'musical'* in its form and expression.
d) children's early language *'play'* is musical with frequent rhythmically sustained pitch and pointed repetition.
e) children slip between speech and song in a very fluid manner.
f) by exploring the relationship between music and language for themselves, children learn to communicate and express themselves effectively.
g) recognizing the linguistic subtleties in the text of a song could enhance the quality of the musical response.
h) children have a natural understanding of narrative structure and musical structure.

The following lesson serves as an example of linking music with language (Figure 8, Appendix C).

4.6 Music and movement.

Music and movement share the dimension of ***'time'***. Movement occupies physical space, while music occupies imaginary space, e.g. melody *'moves'* up and down, sounds grow and diminish, lines intertwine, etc. For children the transition between music and movement is as natural as those between music and language. Movement is a basic mode of musical expression as Moog[220] asserts:

---

[219] J. Glover and S. Ward, Teaching Music in the Primary School, Cassell, London, 1993, pp. 176-178.

[220] H. Moog, The Musical Experience of the Pre-school Child, London: Schott, 1976, pp. 57-58.

> *"[repetitive movements are the]...earliest form of musical response to include something more than simple perception [appearing from about six months as response] ...both to the element of pure sound and to rhythmic pattern"*

For children making music entails moving to music or movement grows from music, e.g. they often dance while singing or playing an instrument. The movement to music can also be the basis for action learning through composition. Through movement they grasp musical structure and expressiveness and learn how to respond to them. Young[221] encapsulates the link between music and movement:

> *"If music lives within us and finds its energy, its dynamics, its shapes and patterns in the activity of our bodies, an activity which is itself a reflection of patterning in our thinking and feeling, so too it can come to be experienced and perhaps only truly understood through the same medium. For it is the dimension of time which makes music elusive and fleeting, yet time takes on a form of reality through bodily movement, we sense it through our muscular system, we see it visually in space, the progression of our bodies through space gives time an actuality. Through movement we can capture music and come to know its structure and its meaning by embodying it, by enacting it actually or by our imaging of physical movements."*

The following lesson serves as an example of linking music with movement (Figure 9, Appendix C).

5. MUSIC MAKING IS A SELF-ACTUALIZER

The essence of the '*Mandala*' approach to music is that creativity or creative thinking is tantamount to self-actualization or selfhood present in all human beings. Self-actualization also involves actions and persuits which strengthens the '*self*', called self-knowledge. Self-knowledge must be positive in order to help build the self-esteem. Enjoyment stems from psychological growth and not biological or social satisfaction.

---

[221]S. Young, 'Movement in a Musical Education,' in J. Glover and S. Ward, Teaching Music in the Primary School, Cassell, London, 1993, pp. 179-180.

As was mentioned in Chapter 1, Elliott believes that selfgrowth and enjoyment are based on the following conditions; a challenge, *'know-how'* and a *'balance'* between the challenge and the *'know-how'*. When the *'know-how'* of a person matches or balances a challenge, the *'self'* experiences enjoyment. In musical terms a pupil or student will experience self-growth, self-knowledge and enjoyment while involved in action with the solving of musical challenges or problems.

Self-actualization or self-growth is central to the '*Mandala*' approach and serves as further justification why music should form an integral or core subject of the curriculum as explained above. Self-actualization within the '*Mandala*' context can be realized through person objectives such as fluency, flexibility and elaboration skills. In order for music education to serve as effective education for self-growth it has to coalesce around the following needs:

5.1 An openness to experience music without distortions or projections.

This requires that the *'inner self'* should complement the external world, accepting our oneness with this world, and accepting that *'music is life'* and not isolated, esoteric objects to be scrutinized by knowledgeable musicians. The attitude of openness also means experiencing music without preconceived social prejudice to different musical styles and cultures, but to allow yourself to be inducted in order to know through the process of action learning. Openness through experience should facilitate knowing in music as an aim. Knowing and respecting different music styles and cultures will facilitate a holistic, humanistic music education and contribute considerably to the higher level form of integration.

5.2 An openness to explore or 'toy' with objects.

This requires *'taking chances'* or *'taking risks'* and not being intimidated by unsuccessful efforts of conduct, but to develop the need to transcend and solve musical or life problems effectively and creatively, as R. Murray Schafer avers: *"Teach on the verge of peril."*[222]
The internalization of stop-rules (conforming to norms and values) as part of the socialization process as well as the often automatic generalization of them, make individuals less prone to *'take chances'* and *'take risks'*. By experimenting and through the *'re'*-factor, pupils eventually will master skills to compose music, perform or improvise and analyse music. Mastering of

[222]R.M. Schafer, Creative Music Education, Schirmer Books, 1976, p. 221.

musical problems as products of self-actualization, will enhance the self-image and lead to greater interest and enjoyment.

5.3 A creative attitude.

Fromm encapsulated this need:

> *"The condition of the creative attitude is the capacity to be puzzled, to concentrate to experience one's self as the true center of the world and as an agent of creativeness who can, at the same time, transcend the boundaries of his person in his relatedness to others and unity with the world. A further condition is to accept conflict rather than to avoid it".*[223]

This quotation envisages that music education's goals and objectives should coalesce around the individual or human as centre of the world, where both teacher and child coexist in collaboration with each other and in a problem-focused milieu (not the usual *'child-centred'* approach). It also emphasizes respect for different music cultures and styles (musical world-view) to achieve the higher level of unity in the world (not conformity).

5.4 Dual rationale experience.

The '*Mandala*' context is an action learning context, whereby music goals and objectives have to be Real-life connected.

Alfred Balkin asserts:

> *"Every music education experience ideally should have a dual rationale that addresses music objectives and also suggest how the attainment of those objectives might help each child deal more creatively with the world around him or her."*[224]

Creative education is built around learning by discovery, by thought or by intuition rather than by reflex. The discovering of one's own abilities by making connections, taking chances, being *'wrong'* or to *'fail'*, seeking alternatives and making choices, are part of creative education.

---

[223]E. Fromm, 'Creativity,' in (ed.) H.H. Anderson, Creativity and its Cultivation, New York: Harper, 1959, pp. 243-244.

[224]A. Balkin, 'The Creative Music Classroom', Music Educators Journal, January 1985, pp. 43-46.

The teacher should seek and share those music-to-life connections[225]. The following example (Figure 10, Appendix C) by Balkin will be adapted for the '*Mandala*' lesson format and will highlight the need for a dual rationale experience of creative music education.

5.5 Creative problem-solving.

Creative music education involves solving musical or life problems effectively. Creative-action-learning (see '*Mandala*' lesson format) coalesces around musical problems stated as action objectives or goals. Creative problem-solving is also tantamount to self-actualization or personal growth. Sherman avers:

> *"...By contrast, the teacher who stimulates the students' imagination through creative problem- solving is the teacher who prepares the student for a life of continued growth and accomplishment."*[226]

Students begin with musical problems which should be based on real music making in the context of a specific music practice. The learner is a participant (not a tabula-rasa) who co-operates with the tutor (facilitator) and both are problem-focused inclined. The tool to solve problems is not so much prior knowledge, but rather a chain of action learning which involves divergent and convergent thinking. Creative problem-solving is a coherent and holistic form of learning whereby the person engages intentionally, constitutively and coherently with this world while interacting with communities.

6. THE KNOWING MUSICIAN IN CLASS

In the previous chapter creativity has been highlighted as a condition of knowing as well as creativity as a problem-solving process. I have also differentiated between the knowing and knowledgeable musician.

---

[225]A. Balkin, 'The Creative Music Classroom: Laboratory for Creativity in Life,' Music Educators Journal, January 1985, pp. 43-46.

[226]R.W. Sherman, 'Creativity and the Condition of Knowing,' Music Educators Journal, Part 2, November 1971, pp. 18-22.

6.1 KNOWING THROUGH COMPOSITION

The M.C.T - model (Diagram 3, Appendix B) highlighted four stages of creative problem-solving, namely, Preparation (understanding the dimensions of the problem and exploration of tentative solutions), Incubation (considering possible solutions and development of ideas), Illumination (arrival at tentative solutions) and Verification (evaluation and refinement of the final product). There is a close correlation between these problem-solving stages and the process of composition.

According to Sessions[227], composition encompasses a subconscious phase (i.e. preparation) during which musical patterns are improvised. This is followed by a conscious phase of elaboration and development of musical ideas (i.e. incubation) through the application of such musical principles as association, contrast and balance. The composer then works further until the connections among the parts and the whole composition become clear (i.e. illumination). Lastly, the composer evaluates his work (i.e. verification).

Bennett's[228] interviews with eight composers follows the same sequence. According to Bennett, composition begins with the discovery of a germinal idea (preparation), followed by a first draft (incubation). This is followed by a period of elaboration and refinement (illumination) and finally a final draft with possible modifications (verification). Do children's compositions, as knowing in music, follow the same process stages as those of adult compositions? Kratus sets out to investigate the use of exploration (preparation), development (incubation and illumination), repetition (verification) and silence by children of ages, sexes and proficiency levels who were engaged in composing a melody on an electronic keyboard.

The sample group consisted of 60 children, ages 7 (first and second graders), 9 (third and fourth graders) and 11 (fifth and six graders), including 10 boys and 10 girls from each age-group, chosen randomly from the student population of an elementary school in the suburbs of Cleveland. All children participated in two 30-minute general music classes (no compositional

---

[227]R. Sessions, 'Questions about Music,' (ed.) John Kratus, 'A Time Analysis of the Compositional Processes used by Children Ages 7-11,' Journal of Research in Music Education, Vol. 37, no. 1, London, 1988, pp. 5-20.

[228]S. Bennet, 'The Process of Musical Creation: Interviews with Eight Composers,' Journal of Research in Music Education, no. 24, pp. 3-13.

activities) each week taught by a music specialist. Children who had prior experience of instrumental tuition on an electronic, piano or organ instrument were excluded. Each subject was tested individually and was acquainted with the instrument before hand.

The following conclusions are most relevant to the 'Mandala' approach:

a) results indicated significant age differences in the use of exploration, development and repetition (Table 9, Appendix A).

b) no significant differences between boys and girls in the use of any of the four compositional processes.

c) the creative act of composition for the 7-year-old subjects was very similar to the act of improvisation (see Diagram 12, Appendix B). The 9- and 11-year-old subjects, on the other hand, used significantly more development and less exploration time (see Diagram 13, Appendix B).

d) these results imply that 9- and 11-year olds use three compositional processes similar to those used by the adult composers, i.e. preparation (exploration), incubation-illumination (development), verification (repetition). The difference between adult and children composers is that adult composers possess a higher degree of enabling skills which enable them to shape musical materials more sophisticatedly.

e) Kratus proposes to educators that the 7-year-olds' (and younger) first creative experiences in music should be improvisatory rather than compositional.

f) creativity may be an important key to helping students gain an understanding of the syntax of music and the process of music making.

Figure 11, Appendix C illustrates a '*Mandala*' lesson format for composition/ improvisation.

6.2 KNOWING THROUGH IMPROVISATION.

Kratus[229] also investigated the process of improvisation amongst small children, i.e. ages two to eight, by comparing it with improvisations done by expert improvisors. The following explanations and results are relevant to the 'Mandala' approach:

a) all improvisors (novice and expert) make purposeful movements to produce sounds with the body (clapping, singing, etc.) or instrument.

b) all sounds created in improvisation form a part of the final product, and an improvisor cannot revise the music after it has been played

---

[229] J. Kratus, 'Growing With Improvisation,' Music Educators Journal, December 1991, pp. 35-40.

c) improvisors have the freedom to choose the pitches and durations while they play, within certain musical constraints, i.e. improvising within the constraints of pulse, meter, tonality, melody or style.

d) research done on the musical characteristics of young children's improvisations supports the use of improvisational action learnings as a meaningful part of early-childhood music education[230].

e) Two differences exist between expert (adult) and novice (child) improvisations:

   i) improvisations done by children are usually process orientated, i.e. they create music for the sake of experiencing the process of creation. The adult or expert improvisor thinks of improvisation as a musical product, i.e. music that can be shared with and understood by others (audience).

   ii) expert improvisors are able to match their musical intentions with the sounds being performed, whereas a beginner, because she/he is unable to audiate, struggles to manipulate an instrument or voice to match musical intentions.

f) The 7 improvisation levels proposed could be structured as knowing in music. Three advantages of these 7 levels are relevant to the '*Mandala*' approach:

   i) they allow teachers to work with students at a developmental appropriate level and,

   ii) knowledge and skills necessary to become an expert improvisor, are sequenced logically,

   iii) levels 1-3 are most relevant to the 'Mandala' approach.

These levels are:

1. Exploration level.

   Also referred to as the pre-improvisational step. Here the pupils explore at random, without audiation, different sounds on instruments or with the voice. The pupils, while exploring, discover combinations of sounds that can be repeated if

---

[230]G. Moorhead and D. Pond, 'Music for Young Children,' (Santa Barbara; C.A.: Pillsbury Foundation for the Advancement of the Arts, 1978, originally published 1941-51), in (ed.) John Kratus, 'Growing With Improvisation,' Music Educators Journal, December 1991, pp. 35-40.

J. Flohr, 'Musical Improvisation Behaviour of Young Children,' (Ph.D. diss., University of Illinois at Urbana-Champain, 1979), in (ed.) John Kratus, 'Growing With Improvisation,' Music Educators Journal, December 1991, pp. 35-40.

J. Flohr, 'Young Children's Improvisations: Emerging Creative Thought,' Creative Child and Adult Quarterly 10, no. 2, 1985, pp. 79-85.

A.R. Deborah, 'Preschool Children's Use of Rhythm in Improvisation: Emerging Creative Thoughts,' Contributions to Music Education 17, Fall 1990, pp. 7-19.

necessary. They learn to audiate patterns while experimenting with sounds. The role of the teacher is to provide pupils with enough time and sound sources to explore with. Pupils can explore by experimenting with timbre, pitch, rhythm, melody, etc. Exploration should preferably be conducted in an individual capacity, rather than in a group.

2. Process-oriented improvisation level.

Pupils start to audiate sounds and the music becomes more directed and pattern-dominated. The pupils produce more cohesive patterns. The role of the teacher is the same as at level one.

3. Product-oriented improvisation level.

The pupil becomes conscious of structural principles such as tonality and rhythm as musical constraints on improvisations. Group improvisations are possible. The teacher's role is to provide pupils with different constraints on their improvisations, e.g. pupils are requested to improvise using a given rhythm pattern or set chord changes.

4. Fluid improvisation level.

The pupil manipulates his or her instrument or voice in a more automatic, relaxed manner. The teacher's role is to concentrate on the technical facility by providing pupils to improvise in a variety of keys, modes, meters and tempos. Once the pupils have overcome technical problems they can better concentrate on the whole.

5. Structural improvisation level..

Pupils can now perform with an awareness of the overall structure of the improvisation. They develop a repertoire of strategies for shaping improvisation, such as nonmusical (moods or images) and musical (modes and development of pattern) ones. The teacher's role is to suggest or model different means for giving structure to an improvisation.

6. Stylistic improvisation level.

Pupils improvise skillfully within a given style, incorporating its melodic, harmonic, and rhythmic characteristics. The teacher's role is to demonstrate to the pupils what the conventions and clichès of a style are. Recordings can be utilized effectively for this purpose. For most musicians, education in improvisation ends at this level.

7. Personal improvisation level.

The musician is able to transcend recognized improvisation styles to develop a new style. At this level improvisation breaks new grounds and establishes its own

set of rules and conventions. The role of the teacher is primarily to be supportive and to encourage further experimentations.

Figure 12, Appendix C is an example of a structured improvisation lesson in the context of the '*Mandala*' lesson format.

6.3 KNOWING THROUGH ANALYSIS.

Analysis means reflective/active listening and written analysis. Analysis, as postulated by aesthetic education, concentrated basically on factual knowledge, programmatic or nonmusical aspects, as ways of experiencing about music.[231] Thus, listening is not passively perceiving qualities in works of art (as postulated by aesthetic philosophy), but rather '*constructing*' (cognitive sense) auditory patterns and events.

Analysis as product of the '*Mandala*' approach is a creative problem-solving approach, where the analyst (performer or composer) acts both as a thinker and performer while gaining knowledge[232]. The function of analysis within the context of the '*Mandala*' approach is: *"analysis is a way of experiencing music, exploring the nature and treatment of its contents and consolidating a coherent body of knowledge".*[233] Listening interacts with improvisation and performance and become central to our thinking-in-action and creative-action-learning.

The development of active listening should form part of all active learning concerned with performance, composition/improvisation and analysis. The following are guidelines:

1) listening as part of eurythmic classes from pre-primary classes to more advanced classes. It is only through careful listening that pupils will discover correct movements to music.
2) The learning of songs requires a well developed musical memory, clarity of intonation, good voice quality and ensemble singing abilities. All these abilities can be developed through concentrated listening in music.
3) Excellent performances on instruments requires concentrated listening for intonation, synchronization, syntax, etc. Faulty playing is often the result of insufficient aural

---

[231]S. Feinberg, 'Creative Problem-solving and the Music Listening Experience,' Music Educators Journal, September 1974, pp. 53-60.

[232]ibid.

[233]C. Dew, 'Introductory Analysis: Towards a Theory for Secondary School Music Teachers,' Music Education: Facing the Future, International Society for Music Education, 1990, pp. 68-73.

concentration. The Suzuki-method encourages young children to learn to play the violin without any staff-notation for the first two years. The aim is to develop concentrated listening in playing music.

4) Part-singing (e.g. choir) develop the ability to distinguish between cluster/chord sounds and melodic lines.
5) Pupils should always first EXPERIENCE sound before they learn the sound symbols or concepts.
6) Musical imagination as product of creative thinking can effectively be developed through active/reflective listening.
7) The development of the musical imagination is important for composing, performing and analysing music.

During interactions of music teaching and learning the music teachers shift back and forth between the products and the processes of pupils' musical thinking. Analysing how pupils think-in-action is important and on the basis of these analyses, pupils thinking-in-action is guided, modelled, demonstrated, etc. by the teacher.

An example of analysis as a means of knowing in music has been structured according to the '*Mandala*' lesson format (Figure 13, Appendix C).

6.4 KNOWING THROUGH PERFORMANCE

The outcomes of the 'Mandala' approach is to create performers, composers and critical/ active listeners. Through creative-action-learning pupils are inducted into music practices as performers, composers and reflective listeners. Performing music composed, arranged, improvised or analysed by classes or peers is central to music making and music education. By performing music, pupils experience music as musicians, learn the relevant standards and traditions of a music practice as well as the context of that practice. By experiencing music as performers they also acquire: performance, composition/improvisation and analyses skills, factual knowledge about music, performance experience as well as developing musical intuition and judgement.

Performance also create opportunities to further develop creative thinking skills (fluency, flexibility, etc.) needed for musical problem-solving. Developing both convergent and divergent music thinking skills through performance could enhance the self-esteem of children leading to selfgrowth, self-knowledge and enjoyment in and through music.

7. THE INTERCULTURAL ROLE OF MUSIC

A holistic South African music model (Diagram 14, Appendix B) similar to that of Singapore and Japan is envisaged[234].

However, the intercultural *'Mandala'* model (I.C.M.-model) emphasizes music as a reflective musical practicum (apprenticeship)[235] and not a musical phenomenon to be contemplated in isolation from its context. The reflective musical practicum simulates the ways music making and listening are carried out by artistic musical practitioners.[236] Such an approach should embrace the development of creativity and respect for individual dignity. Respecting each other's cultures as part of the creative product of self- actualization through action learning, should be the basis of a holistic approach, in order to make us a winning nation.

An intercultural approach also differs from the multicultural music notion. Multicultural education favours the partition of society into various cultural groups, i.e. the coexistence of many ghettoized monocultures. Multiculturism develops a pride in a culture but does not promote cultural interaction. Intercultural music enriches the total musicians through the understanding and practising of world music. World music also offers understanding of absolute humanity across the globe. William Konila Amoaku in his keynote address on world music asserts:

> *"World music is the embodiment of and represents a people's expression of "life" in its most intimate and holistic form. It attempts to articulate the deep sensitivity of the individual and community towards that oneness of the universe, that unity that is constantly mined afresh by the varied events of everyday life: The births, puberty, marriages, religious observances, etc. ... [world music] offers us an understanding and implications of culture as the repositories of our "souls", and*

---

[234]T. Takizawa, 'The Curriculum of Music Education from the Viewpoint of Asia - A Treatment of Western Music and Traditional Music,' Music Education: Facing the Future, (ed.) P.B. Dobbs, Helsinki, Finland, 1990, pp. 267-274.

[235]A.Collins, J.S. Brown and S.E. Newman, 'Cognitive Apprenticeship: Teaching the Crafts of Reading, Writing and Mathematics,' in (ed.) L. Resnick, 'Knowing, Learning and Instruction: Essays in Honor of Robert Glaser,' Hillsdale, N.J.: Erlbaum, 1989, in D.J. Elliott, Music Matters: Towards a New Philosophy of Music, Oxford University Press, 1995, pp. 453-454.

[236]D.A. Schön, 'Educating the Reflective Practitioner', in D.J. Elliott, Music Matters: Towards a New Philosophy of Music, Oxford University Press, 1995, p. 37.

indeed our absolute humanity"[237]

Intercultural education through music is now a much needed and vital perspective for South Africa, the World and a means of questioning ethnocentrism. Intercultural education develops pluralistic imagination and open mindedness towards others' culture and music, while accepting one's own culture and music. Pluralism in music education also allows for a relativist view of authenticity of a music culture. Authenticity of a music culture within the 'Mandala' approach means respecting the culture bearers' values and artistic vision. By comparing similarities and differences between cultures, mutual influences could be grasp which allows for interaction between cultures or subjects.

Figure 14, Appendix C, indicates a lesson based on cultural interaction (intercultural approach). An intercultural approach to music envisaged for the future, a need for a representative South African National School Song Collection. David Elliott's[238] vision of the *'dynamic multicultural curriculum',* (intercultural) *i.e.' curriculum-as-practicum'*, is compatible with the '*Mandala*' action learning approach to music. Thus, Elliott's 'dynamic multiculturalism' is in essence an intercultural approach to music. According to his model, music is viewed as a *'reflective practicum'* which values can best be understood by allowing pupils to work artistically in action, together with familiar and unfamiliar music cultures. These encounters according to Elliott, will confront pupils with familiar and unfamiliar beliefs, preferences and outcomes as part of the problem- solving process of music. The dual rationale of such an approach is *"preparing children to work effectively and tolerantly with others to solve shared community problems"*[239]

The development of tolerance and cultural sensitivity are also two critical outcomes of Outcomes-based education in South Africa.

SUMMARY

The Sanskrit word '*Mandala*' is an Indian term which means a *'magic circle'*. In Hinduism and Buddhism '*Mandalas*' signify wholeness and unity. A '*Mandala*' is also a term used by the

---

[237]W.K. Amoaku, 'Keynote Address: World Music; Where Are We Heading?' in Proceedings of the 6th National Conference of South African Music Educator's Society, 12-15 July 1995.

[238]D.J. Elliott, Music Matters: Towards a New Philosophy of Music, Oxford University Press, 1995, p. 293.

[239]ibid.

psychiatrist Carl Jung in his Analytic theory of personality. According to Jung the *'self'* is the core or centre of personality which is expressed inter alia, via the '*Mandala*' symbol. The '*Mandala*' symbol signifies equilibrium, wholeness, stability and creativity.

The '*Mandala*' approach to music places creativity as a condition of knowing (thinking and acting) at the centre of our musical knowing. Such musical knowing coalesces around a problem- focused attitude which is antithetical to music as subject-based learning. The purpose is not so much to create knowledgeable musicians, but rather knowing musicians.

The '*Mandala*' context of musical knowing questions the foundationalist truths of knowledge, postulated by the idealism of the philosophy of Aesthetic education. The '*Mandala*' approach to music questions certain truths on which Western learning is based, i.e. that the learner is *"the barbarian outside the gates of civilization"* who needs to be initiated into *"the citadel of civilization"*. To the contrary, the '*Mandala*' approach postulates that both teacher (facilitator with more knowledge) and pupil(learner with less knowledge) should cooperate with a reciprocal problem-focused attitude.

The musical problems should be genuine or real life problems. The learning should not be based on *'telling-out-of-context-of-action',* but rather *'showing-in-context-of-action'.*

Music as a creative thinking activity means thinking and acting to constitute knowing in music. In the '*Mandala*' approach creativity means creative thinking which is an important stimulus for the expression of the '*self*' and the image of persons.

The M.C.T-model (*Mandala* Creative Thinking Model) proposed is based on creativity as creative thinking to constitute an integrated condition of knowing through action learning. Knowing in music through action learning coalesces around musical intentions/problems to be solved and to create products of knowing. Such intentions and products of action learning are performance, composition/ improvisation and analysis.

The creative interactive problem- solving core (C.I.P.C) of creative thinking (divergent and convergent), together with enabling skills and enabling conditions, merge to create creative products primordially posited as product intentions, i.e. **performance, composition/ improvisation and analysis**.

Music as action learning takes the activities and spiral music approaches one step further. Action learning in music connects pupils' learning in the classroom, with their personal ideas, experiences and feelings or potential musical involvement outside of school or after graduation. Action learning for the '*Mandala*' approach should be well structured according to the three components of creativity discussed in Chapter 2, i.e. doer, process and product. These components, however, operate holistically and should be stated as action goals, objectives or musical challenges.

The '*Mandala*' lesson format is based on the C.I.P.C of creative thinking to be modelled on three stages, i.e. preparation and planning stage, teaching and learning stage and synthetic and evaluation stage. Action objectives are stated as musical problems in the context of problem-focused learning.

A holistic and humanistic philosophy as postulated by the '*Mandala*' approach to music inevitably involves integration of some form. The human-centred paradigm (opposed to subject-centred paradigm) highlights the need to *'turn a life on'*, i.e. teach inter alia, initiative, self-reliance, spontaneity, resourcefulness, kindness, creativity(creative thinking), courage, responsibility and joy in pupils. The integrated '*Mandala*' continuum of knowledge places music as core subject within the school curriculum.

The integrated '*Mandala*' continuum of knowledge follows recent trends at I.S.M.E and S.A.M.E.S - conferences and implimented by England's National Curriculum, where the emphasis is shifting from music as *'elitist'*(music-as-talent) subject to music as an *'integrated'* (music-for-all) subject.

Radical changes to the status and role of the music specialist and class teacher will ensue, whereby the actual teaching of music education at the primary school level, now becomes the concern of the class teacher rather than the concern of the music specialist. The music specialist becomes the music co-ordinator or consultant whose tasks revolves around the planning of curriculum, advising colleagues about developments and supporting the class teacher.

Various lessons linking music with academic subjects have been designed. The '*Mandala*' approach enhances self-actualization/ self growth, self knowledge and enjoyment through music which coalesces around certain needs based on person action objectives such as

fluency, flexibility and elaboration skills. These skills can effectively be utilized by the teacher in composition/ improvisation, performance and analysis to create knowing musicians.

Knowing through composition follows the four stages of creative thinking (C.I.P.C-stages) which could be utilized within the classroom. Research done on the composition characteristics of young children (7 and younger), indicates that they should start with improvisational action learnings rather than composition, as part of early childhood music education. Although listening is central to musical action learning it is within analysis that it becomes active or reflective *'to see more'* together with written work as part of creative thinking-in-action.

A holistic philosophy also entails cultural interaction amongst diverse musical cultures and styles, the so-called *'world-view'* of music. The Intercultural '*Mandala*' model proposed, states that music as a practicum (not a phenomenon) can only be understood meaningfully when taking a comprehensive or '*Mandala*' approach.

Whilst many curriculum models for multi-cultural music education are proposed, David Elliott's *'dynamic multicultural curriculum'* model or *'curriculum-as-practicum'* is compatible with the '*Mandala*' approach to music in South Africa.

Appendices

Appendix A (Tables)

TABLE 1

A comparison between aesthetic and 'praxial' philosophies

Aesthetic philosophy	Praxial philosophy
1. The primary focus of general music programmes should be listening.	1. The primary focus of general music programmes should be practice-centred listening.
2. MUSIC is the isolated, asocial consumption of aesthetic objects.	2. Through authentic music making, music is a diverse, human, participatory, social and performing art.
3. The emphasis is on love, appreciation and the enjoyment of musical performance.	3. To become an enthusiastic and knowledgeable listener requires knowing MUSIC as the interpretive and social art it is.
4. Recorded music creates the illusion that music listening is private and passive.	4. Authentic music making leads to expert listenership. Recorded music tends to distort the information it conveys.
5. The listener is an objective observer of the musical events, concentrating only on the aesthetic qualities of aesthetic objects in order to have aesthetic experiences.	5. The reality of music listening for most people in most musical practices, is one in which people join together in the communal and ritual actions of listening, watching, and participating empathetically as music makers. This leads to musical events and experiences.
6. One needs not compose or perform in order to experience music. Listening passively, impersonally and disinterestedly should suffice.	6. Students / pupils should learn how to perform, improvise, compose, arrange and conduct, in order to know music well. Central to all these is listenership.
7. Listening is a mental activity while music making is physical. (dualist paradigm)	7. Music making and listening are mutually interdependent, they are two sides of the same coin. The self that makes music and the self that listens for music is the very same self. Expert listening know-how is embedded in the experts listening know-how.

8. The good music listener does not need to be a proficient or expert performer, composer, analyst or conductor.	8. The expert's listening know-how is distinguished by its embeddedness in his or her expert actions of singing or playing.
9. An aesthetic experience focuses on the structural elements of a musical work.	9. A musical experience focuses on constructive actions of music making ('*musicing*') and listening.
10. An aesthetic experience serves no practical purpose.	10. Musical experiences are valuable in practical terms to create selfgrowth, self knowledge and enjoyment.
11. An aesthetic experience is intrinsic, immediate, disinterested, self-sufficient and distanced.	11. Musical practices are '*interested*', purpose-full, and inclusive pragmatic thoughtful actions of artistic music making.
12. Any meanings functions, or experiences not directly related to a work's structural patterns are incidental, irrelevant, referential or non-musical.	12. Musicians' ('*music makers*') performing and improvising are intelligent actions in relation to standards and traditions of musical practice.
13. Musical experiences result from immediate, disinterested, aesthetic perception.	13. Musical experiences depend on culturally and contextually determined understandings, both tacit and verbal.
14. The musical processes and experiences are in a hermetically insular aesthetic realm.	14. Musical processes and experiences are part of our lives' social reality.
15. Musical works mean/express nothing more than only the actual sounds.	15. Musical works are multi-dimensional and expressive of many kinds of meanings, i.e. moral, didactic, iconic, political, religious or personal.
16. An aesthetic experience is a feelingful or emotional type of experience.	16. During musical experiences, musicers and listeners often experience focused concentration and deep absorption.

17. M.E.A.E. uses listening charts and recordings in isolation from active music making in order to develop the psychical distance amongst children.	17. Listening charts and recordings should supplement active goal directed music making and guide pupils toward the multidimensional nature of musical works.
18. Pupils are encouraged to become consumers or customers of recorded '*collectibles*'.	18. Recorded music should not overwhelm or replace genuine music making, but rather supplement it.
19. Music as aesthetic education encourages a split between listening-based programmes and performance programmes.	19. Listening depends on music making. The two are interdependent as aspects of musicianship.
20. Aesthetic philosophy emphasizes "*having*" in the actions of music.	20. Praxial philosophy emphasizes "*being*" in the actions of music.
21. All ' good' music ought to be listened to aesthetically to ensure that the presented form will be responded to in and of itself (i.e. autonomous) and not as any kind of 'generalized, communicated information'.	21. Music (all music) is a diverse human practice which is central to the constitution of cultural and individual identities. Music making and music listening are by nature cultural-ideological actions and information conveyed via musical works.
22. Musical sounds are aesthetic qualities to be listened to aesthetically.	22. Musical sounds are culture-based artistic constructions and should be listened for within a culture-specific context.
23. The sound patterns of music are one-dimensional aesthetic constructs.	23. The sound patterns of music are multi-layered, based on a range of flexible dimensions.
24. When a person is listening to the aesthetic element of music in a concentrated way, he is, in a real sense, creating along with music	24. Music listening is central to any form of music making, and a proficient level of listenership is crucial to creative musical achievement.
25. The criterion for deeming something creative does not lie in a product, but in a special process.	25. The criterion for deeming something creative lies with a tangible product.

26. Creativity is a special subjective kind of feeling which needs special abilities from the creator.	26. Creativity is not limited to isolable creative abilities or different feelings from the ordinary human kind.
27. Music judged good or bad cannot be based on functional or referential components. Musical judgement is acontextual.	27. Judgements of musical artistry and creativity should be based on the musical representation dimension of many musical works from many music cultures. Musical judgement is contextual.
28. The aesthetic curriculum is reductionist in nature.	28. The praxial curriculum is procedural in nature.
29. Aesthetic curriculum favours dualistic notions.	29. The praxial curriculum opposes a dualistic approach to music.
30. The aesthetic curriculum favours the structure-of-discipline notion.	30. The praxial curriculum favours the music making curriculum or '*reflective musical practicums*' notion.
31. M.E.A.E. believes that the arts can and should be integrated.	31. Praxial philosophy believes that each kind of artistic knowing needs to be taught and learned in its own.
32. M.E.A.E. assumes the existence of a general capacity called '*aesthetic sensitivity*' that improves with awareness of the '*aesthetic elements*' of things.	32. The praxial philosophy rejects the notion of an '*aesthetic sensitivity*' capacity. To understand and enjoy music requires a specific kind of situated cognition.
33. M.E.A.E. is problem-based learning which evolved from foundationalism.	33. The praxial philosophy is a problem-focused form of learning.
34. M.E.A.E. views analysis as listening and written work <u>about</u> music.	34. The praxial philosophy denounces analysis postulated as <u>about</u> music. Listening and performance are intertwined with each other.

TABLE 2[240]

A COMPARISON BETWEEN SUBJECT - BASED LEARNING AND PROBLEM-FOCUSED LEARNING

SUBJECT-BASED LEARNING	PROBLEM-FOCUSED LEARNING
1. Reflects a foundational epistemology for learning .	1. Is a transfoundational context of learning.
2. Predicates dualist images, e.g. "the citadel of civilization versus the barbarian world beyond" or Theory versus Practice.	2. It is a coherent/holistic context of learning.
3. Emphasizes prior knowledge as a tool to solve problems.	3. Problem-focused learning questions the emphasis on prior knowledge as a tool to solve problems.
4. Knowledge is defined in terms of theoretical foundations.	4. Knowledge is defined in terms of solutions to problems.
5. Learning starts with knowledge followed by exercises or simulated problems.	5. Learning starts with problems.
6. Knowledge is divided into distinquised and independent disciplines, which often lead to fragmented learning.	6. Disciplines should coalesce around problems and discipline boundaries are relative.
7. Action is based on learning, only to be gained via an established institution.	7. Action is solving real problems in real situations.
8. Problems are mocked or simulated exercises which usually follow lectures or lessons.	8. Students start with genuine unstructured problems.
9. Views the person as a disengaged person, a separate atomistic entity with utilitarian reasonings of the world.	9. Views the person to be engaged, constitutively and coherently with the world.
10. Reasoning about the world in an instrumental or objective way - this presupposes separateness from the world.	10. People cannot only reason about the world in an instrumental or objective way - this presupposes separateness. Subjectivity and feelings are also important.
11. Postulates that certainties or fundamental truths exist on which learning is based.	11. Questions fundamental truths as postulated by foundationalists. Knowledge or fundamentals are relative and old knowledge are solutions to old problems.
12. The learner is "the barbarian outside the gates of civilization". The learner knows nothing, the teacher knows everything.	12. The learner and facilitator or tutor co-operate in an educational enterprise.

[240] D. Margetson, 'Understanding Problem-based Learning,' Educational Philosophy and Theory, Vol. 25, no. 1, 1993.

13. We are students of subject-matter.	13. We are students of problems.
14. The role of the teacher is to teach subject-matter to pupils and to make sure that they have absorbed knowledge "effectively" and "sufficiently".	14. The role of the teacher is to help students to learn.
15. Pupils only have to absorb knowledge which they have to reproduce at a later stage.	15. Pupils are required to solve real problems, to think critically to work independently, to analyse, discover for themselves, create, elaborate, redefined, rethink and "re-" everything else, as part of the process of knowing.

TABLE 3

Dewey's problem-solving method	S.J. Parnes's problem-solving method
1. Stage one: Providing an experience through which one may explore ideas and materials and note interactions.	1. Fact-finding: gathering and analyzing related data.
2. Stage two: Arising out of this experience, a problem begins to emerge.	2. Problem-finding: finding the *real* problem.
3. Stage three: Making suggestions on information and observations as to what one might do to solve the problem.	3. Idea-finding: processing and developing possible leads to solutions.
4. Stage four: Testing and developing solutions which occur in an orderly way.	4. Solution-finding: evaluating potential solutions.
5. Stage five: Testing final solution by application.	5. Acceptance-finding: implementing the chosen solution.

TABLE 4[241]

A COMPARISON BETWEEN SUBJECT-CENTRED AND HUMAN-CENTRED PARADIGMS

(OLD PARADIGMS) SUBJECT-CENTRED	(NEW PARADIGMS) HUMAN-CENTRED
1.- Emphasis on content, - Acquiring a body of "right" information (once and for all) * Here we see a laid-on authoritative approach which is less motivating and	- Emphasis on learning how to learn, how to ask questions, pay attention to the right things, be open and evaluate new concepts. - What is now"known" may change, - Importance of context. - here we see the discovery, investigation-approach where there is more individualism and self-motivation.
2.- Primary reliance on theoretical, abstract "book knowledge".- * Here we see an example of education being an end to a means.	- Theoretical and abstract knowledge heavily complemented by experiment and experience, both in and out of classroomfield trips, apprenticeships, demonstrations, visiting experts. whereas here we see where the student can really be "turned on" and therefore will be more motivated towards learning.
3.- Learning as a product, a destination. * Here we see the conservative approach which is an example of external education.	- Learning as a process, a journey. whereas here we see the progressive approach which is internal.
4.- Increasing reliance on technology, - Dehumanization. * Here we have a one-way autocratic process,	- Appropriate technology - Human relationships between teachers and learners of primary importance. whereas here it is a two-way and democratic process.
5.- Concerns with norms, * This approach shows a professional approach which is competitive,	- Concerns with the individual's performance in terms of potential. whereas the new paradigm shows the individual is more important and thus reflects a non-competitive amateur philosophy especially evident in Music
6.- Emphasis on external world, - Inner experience often considered inappropriate in school setting, * This shows the conventional approach with which we are so familiar	- Inner experience seen as context for learning, - Use of imagery,"centring", exercises and exploration of feelings. whereas the new assumptions show an "original" approach which, of course, is so much more meaningful.
The next seven paradigms continue to show how education can be more effective for our students and especially so in Music.	

[241]J. Atkinson, 'Towards a Theory and Philosophy in Music Education,' Music Education: Facing the Future, Proceedings of the 19th World Conference of the International Society for Music Education, (ed.) Jack P.B. Dobbs, Helsinki Finland, 1990, pp. 39-42.

7.- Priority on performance, * Here we see the élitist professional philosophy of first and the person second.	- Priority on self-image as the generator of performance - whereas here we see that if the individual's self-image performance is good, that will generate the performance. - The person here is more important than the product.
8.- Lockstep progress, - Emphasis on the "appropriate" ages for certain activities, age segregation, - Compartmentalized. * This paradigm shows a lack of concern for individual differences. It is institutionalized, reflects mass teaching and can be described as "education on the platter".	- Flexibility and integration of age groupings, - Individual not automatically limited to certain subject matter by age. whereas here we see individual teaching reflecting a genuine concern for the individual person. This approach leads to a much higher motivation level.
9.- Bureaucratically determined. - Resistant to community input. * Here we have a classic paradigm that shows the authoritative, laid-out and often inappropriate curriculum and a lack of understanding.	- Encourages community input, even control. whereas here we see a cross-section of administrators and an approach which meets the needs of people much more appropriately.
10.- Teacher imparts knowledge, - A one-way street. * Here we have another example of the autocratic approach.	- Teacher is learner too, - Learning from students. whereas here is the democratic, more motivating approach.
11.- Education seen as a social necessity for a certain period of time, to inculcate minimum skills and train for a specific role.	- Education seen as a life-long process, one only tangentially related to schools.
* Here we see again the external assumptions compared to the internal assumptions of self-discovery.	
12.- Hierarchical and authoritarian structure, Rewards conformity, discourages dissent. * here students are to accept without thinking.	- Egalitarian condour and dissent permitted, - Students and teachers see each other as people, not role. - Encourages autonomy. whereas this paradigm shows that dialogue permits thinking and more meaning envolves.
13.- Relatively rigid structure, - Prescribed curriculum.	- Relatively flexible structure, - Belief that there are many ways to teach a given subject.
* This last paradigm again pinpoints the autocratic external approach in comparison to the new democratic, internal approach.	

TABLE 5

A COMPARISON OF THE STAGES OF THE CREATIVE PROCESS AS ENVISAGED BY WALLAS, MACKINNON, PARNES AND STEIN

MAIN CREATIVE PROCESS STAGES	PREPARATION		INCUBATION	ILLUMINATION		VERIFICATION
STAGES	STAGE 1		STAGE 2	STAGE 3		STAGE 4
WALLAS (adapted by Patrick)	PREPARATION becoming familiar with problem situation		INCUBATION beginning to form outline and defintion of problem	ILLUMINATION defining goal and working towards it		VERIFICATION analyzing and working out results in full
STAGES	STAGE 1	STAGE 2	STAGE 3	STAGE 4		STAGE 5
MACKINNON	PREPA-RATION gathering skills to pose the problem	CONCER-TED EFFORT leading either to immediate solution or to stage 3	WITHDRAWAL renouncing the problem temporarily	SUDDEN INSIGHT experiencing an 'a-ha'		VERIFICATION elaborating, evaluating and applying results
STAGES	STAGE 1		STAGE 2	STAGE 3	STAGE 4	STAGE 5
PARNES	FACT-FINDING gathering and analyzing related data		PROBLEM-FINDING deciding on the real problem	IDEA-FINDING processing and developing possible leads to solutions	SOLUTION-FINDING evaluating potential solutions	ACCEPTANCE-FINDING implementing the chosen solution
STAGES	STAGE 1		STAGE 2	STAGE 3		STAGE 4
STEIN	PREPARATION concerning all formal and informal educational experience		HYPOTHESIS FORMATION raising questions and generating ideas relating to the problem	HYPOTHESIS TESTING testing ideas and finding solutions		COMMUNICATION OF RESULTS implementing the chosen solution

TABLE 6

RELATIONSHIP BETWEEN PERSONAL QUALITIES AND PROPERTIES OF THE CREATIVE RESPONSE

	CREATIVE RESPONSE PROPERTIES	PERSONAL QUALITIES
JUDGING MOST CREATIVE WORKS	UNUSUAL/ ORIGINAL/ UNIQUE RESPONSE	- ideational fluency. - impulse expressions. - cognitive styles of tolerance of unreality and inconsistency
	APPROPRIATE RESPONSE	- persons who are intuitively sensitive
HIGHLY CREATIVE WORKS	TRANSCENDENCE/ TRANSFORMATION OR THE IMPACT ON SOCIETY	- requires flexibility
	CONDENSATION/ SIMPLICITY	- requires reflectiveness and spontaneity.

TABLE 7[242]

A COMPARISON BETWEEN THE OLD AND NEW EDUCATION APPROACHES IN SOUTH AFRICA

OLD APPROACH	NEW APPROACH
1. Education is input-based, i.e. pupils recall subject content or regurgitate content during tests and examinations fed to them by teachers and text books.	1. Education is outcomes-based, i.e. achievements are evaluated in terms of skills, attitude or knowledge as outcome of the course. An outcome is defined in terms of what pupils can do or demonstrate or an appropriate attitude gained from learning experience. Pupils must know which criteria they need to meet in order to become competent.
2. Assessment is norm-referenced, i.e. pupils individual achievements are compared with the class average.	2. Assessment is criterion referenced, i.e. a pupil's performance will be evaluated against an external criterion or a set of explicitly stated criterion.
3. Assessment is summative ,i.e. marks are added together at the end of the year to produce a larger 'picture' 'description' or 'summary' of the standard of students' performance. This 'description', 'picture' or 'summary' can be made in words (reports), numbers (report), symbols (report) or outcomes.	3. Assessment is formative, i.e. it shapes and forms learning. Formative assessment helps students to improve their performance and learning as well as allows teachers to reflect on and improve their own teaching.
4. The emphasis is on "KNOW THAT", i.e. the content of their subject.	4. The emphasis is on "KNOW HOW", i.e. pupils should know how to do things and solve real life problems.
5. Education is based on C.N.E. (Christian National Education) and Bantu education designed to oppress and deny people access to opportunities to gain information, skills and experience necessary to develop this country and make the economy grow.	5. Education is based on outcomes-based education designed to empower learners with knowledge, skills, abilities and attitudes to be performed in the context of realistic professional tasks. The key principles are equity, quality access to opportunities and the redress of past inequalities.
6. C.N.E. did not promote people to think analytically, critically or creatively.	6. Outcomes-based education strives to promote analytical, critical and creative thinking and doing (action). Learners should take control of their learning situations and their lives.
7. There exists a gap between education and thinking. Education is the area where learners gain knowledge. Training is the area where learners gain skills.	7. The N.Q.F. (National Qualifications Framework) approach integrates education with training by recognizing qualifications achieved in both formal and informal learning situations.
8. Education is broken up into discrete disciplines called subjects. Subjects fragment education because of the artificial boundaries which exist amongst them. Learners never experience the 'big picture' which only comes about through integration of knowledge.	8. An integrated approach to education and training rejects a rigid division between academic and applied knowledge, theory and practice, knowledge and skills, hand and head. Traditional subjects are grouped into learning areas or combined into a particular topic/theme.
9. Teachers are viewed as dispensers of knowledge, while pupils willingly and uncritically absorb knowledge.	9. Learners should be valued as equal and active participants in learning and development processes.

[242]C. Cubisi, V. Wedekind, and B. Parker, Understanding Outcomes-Based Education Reader and Learning Guide: Knowledge, Curriculum and Assessment in South Africa, SAIDE, Pretoria, 1997.

10. Tests and examinations were the dominant means of assessment in the "input-based" education.	10. Outcomes-based education in S.A emphasizes formal continuous assessment and informal formative assessment.
11. Curriculum is perceived and understood from the 'curriculum as blueprint' point of view.	11. Curriculum is practiced within the context of curriculum as environment, i.e. the product of the interactions between various components.
12. The focus is on the curriculum as input (the plan).	12. The focus is on the curriculum as output (action).
13. Great faith is placed in what the planned curriculum would want.	13. The focus is on how teachers and learners actually interpret, teach and learn the curriculum.
14. The teacher is an unquestionable technician who uncritically carries out the plan's instructions.	14. The teacher is actively and thoughtfully involved in interpreting and constructing curriculum within the learning context.
15. The factors which impact the teaching and learning environment are not considered carefully when drawing up a curriculum plan.	15. All aspects of the teaching and learning environment should be considered when designing a curriculum.
16. The curriculum is a blueprint to be followed by teachers and to be understood in terms of the syllabus content.	16. Curriculum as practice /experience allows for curriculum interpretations to be made by teachers, pupils and parents. Teachers also become active constructors of the learning environment.
17. Teaching methods are content-focused and teacher-centred.	17. Teaching methods are competence-focused and learner-centred.
18. Learning stops after leaving school or obtaining a qualification.	18. The National Qualifications Framework (N.Q.F) provides opportunities for life long learning. 'Re-education' is needed to keep pace with changes.
19. Qualifications often reflect the time taken to complete qualifications.	19. Qualifications reflect competence, i.e. a combination of thinking (head) doing (hand) and attitude/value.
20. Teacher-centred textbook teaching.	20. Learner centred teaching. The teacher as facilitator helps with solving problems in the context of team- and groupwork.
21. Rigid syllabus.	21. Learning programmes are guidelines to help teachers to determine and develop their own creative programmes.
22. Teachers are responsible that pupils learn. The child's learning motivation depends upon the teacher's personality.	22. The learner accepts responsibility to learn motivated by constant feedback and establishing of his/her own value.
23. Content must be mastered within set time limits.	23. The learner may adjust time limits to suit his/her pace of work.
24. Syllabi development is not open to public scrutiny and comment.	24. Comments and contributions from the community are welcome.

TABLE 8

THE MANDALA JUSTIFICATION FOR TRANSFORMATION AND INTEGRATION IN EDUCATION

NEW APPROACH	PUPIL LEARNING
1. Education should be challenging in order to develop our mental capacity. A creative approach transforms the process of education, making it more alive.	1. Pupils should be confronted with challenging and imaginative real-life learning situations.
2. Creativity in education is centered on an attitude, approach and perspective which can be applied to the whole spectrum of learning.	2. To develop creative skills and attitudes as part of holistic teaching.
3. A practical creative philosophy means a way of understanding and knowing which is quite different from collecting facts and information.	3. Understanding and knowing mean the development of choice, selection, decision-making and preferences, i.e. critical thinking.
4. An open creative attitude means a sensitive balance between freedom and responsibility.	4. To stimulate self- criticism and evaluation.
5. Schools should develop the whole person and should therefore not only concentrate on the intellectual activity.	5. To develop the imaginative capacity, as Einstein once said: *"Imagination is more important than knowledge."*
6. It is important to move away from uniformity for its own sake in education. Education should not produce replica human beings.	6. To develop common understanding amongst people.
7. Since it is difficult to predict the future of education, it is of vital importance that pupils and teachers should develop a creative philosophy and approach.	7. To be flexible, and respond imaginatively to problems and new situations.
8. The world is a global village and we need a personal and collective creativity to cope with an everchanging environment.	8. We need to move away from the idea that things which are different are a **threat** to our own position, a challenge to our identity and behaviour.
9. We need a holistic approach to curricula. The fragmentary nature or uncertainty of our existence is also being reflected in aspects of our education system. Our music curriculum is depressing, fragmented and lacks a holistic, integrated and interesting approach. Creativity is dampened by depression.	9. Opportunities for self-expression (which are fundamental to the Arts) strengthen identity at personal and community levels, since education takes place in the home, school, college or university and community.

10. Creativity is not limited to the Arts, but is part of our humanity which needs to be encouraged, so that we can become whole people.	10. Pupils' learning should practically expose them to interdisciplinary creative approaches.
11. The creative process is a struggle, it is not an easy process. The world is a rich source of variety.	11. Pupils' learning should practically expose them to problem-focused learning. It is therefore essential to balance unity and variety, pattern and apparent chaos, the familiar and unfamiliar, the expected and unexpected or the anticipated and the surprising.

TABLE 9[243]

MEAN PERCENTAGE OF TIME DEVOTED TO EXPLORATION, DEVELOPMENT, REPETITION, AND SILENCE BY AGE AND SEX.

	MEAN PERCENTAGE OF TIME USE			
SOURCE	**EXPLORATION**	**DEVELOPMENT**	**REPETITION**	**SILENCE**
AGE:				
7 Years	65.63	15.13	10.83	8.42
9 Years	39.67	25.75	24.04	10.54
11 Years	29.63	33.13	30.92	6.33
SEX:				
Girls	41.42	25.58	26.47	6.53
Boys	48.53	23.75	17.39	10.33

[243] J.K. Kratus, 'A Time Analysis Of The Compositional Processes Used By Children Ages 7 - 11,' Music Educators National Conference (U.S.), Vol. 37, Part 1, Spring 1989, pp. 5-20.

Appendix B (Diagrams)

THE PRAXIAL PHILOSOPHY OF MUSIC

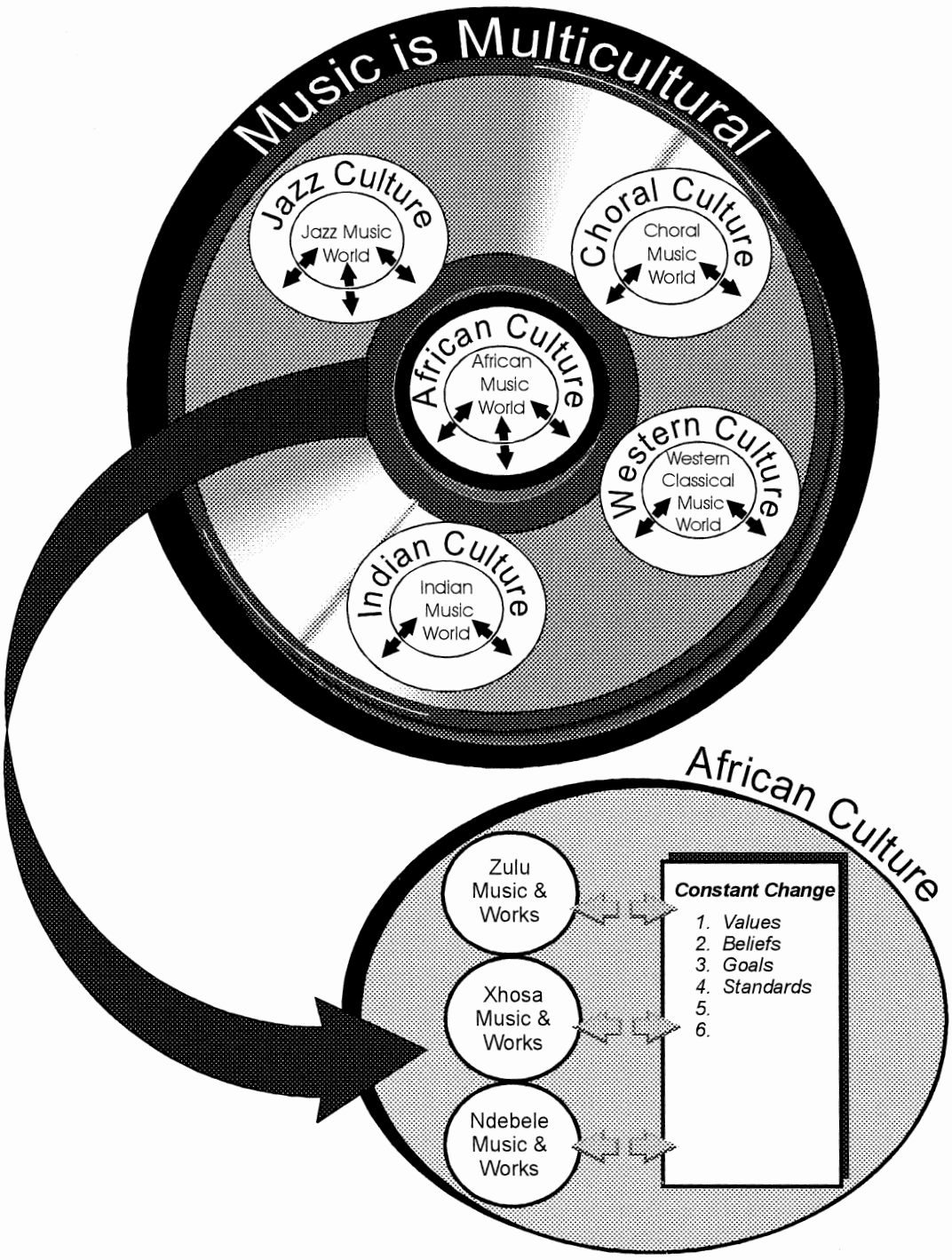


DIAGRAM 1

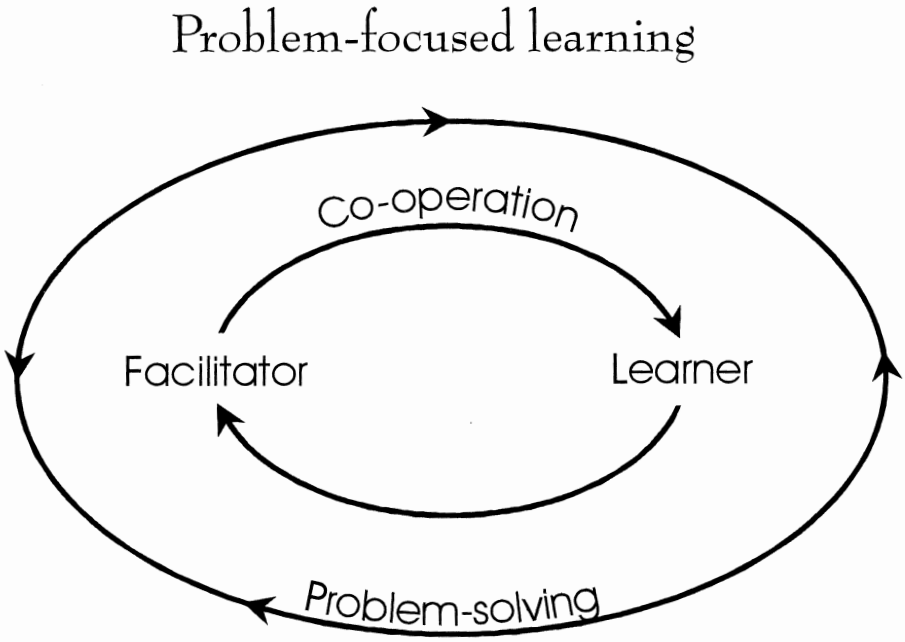
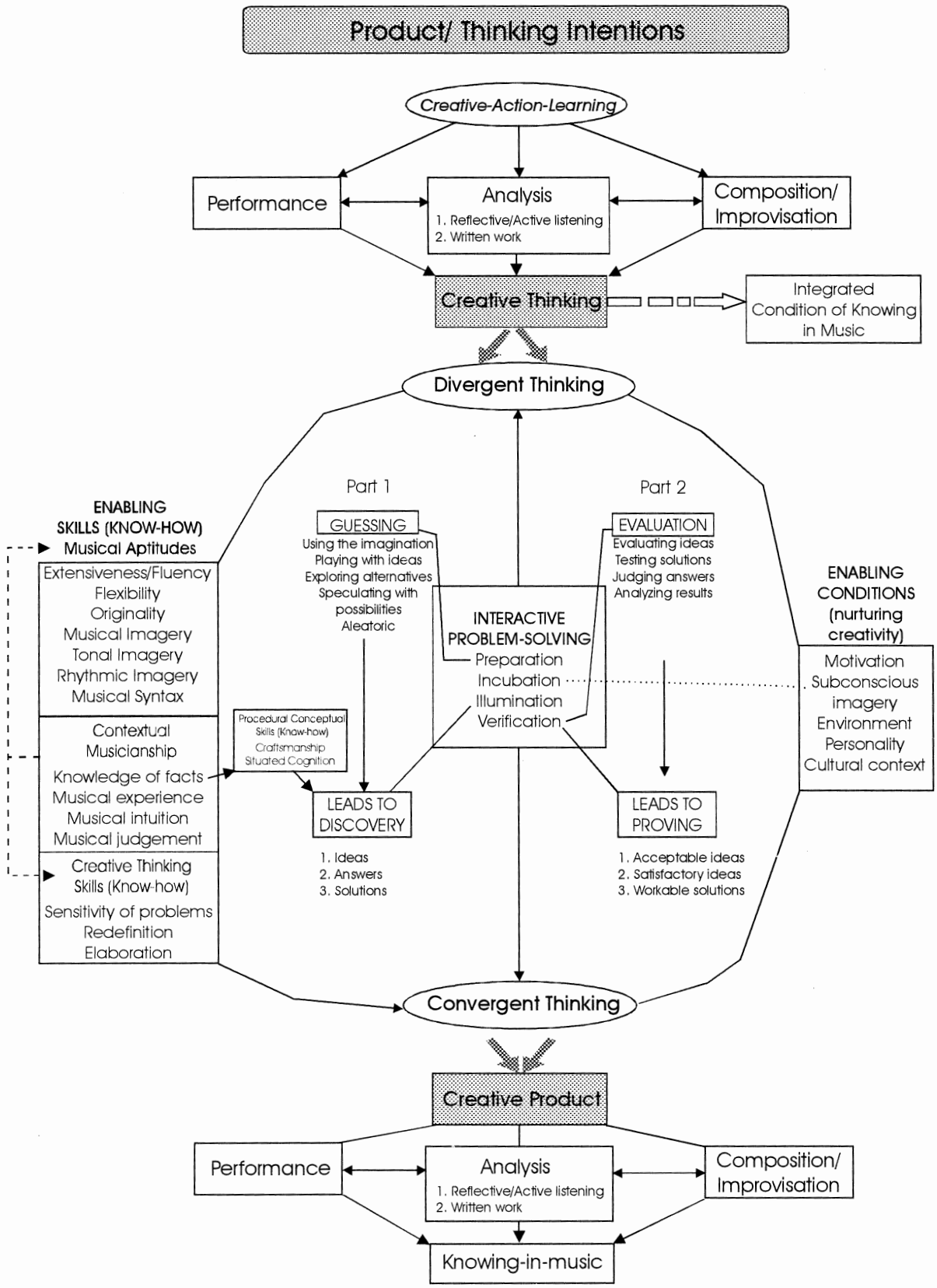

Problem-focused learning
Co-operation
Facilitator
Learner
Problem-solving

Diagram 2

The Mandala Creative Thinking Model of Music



Based on creative thinking model by P. Webster

Diagram 3

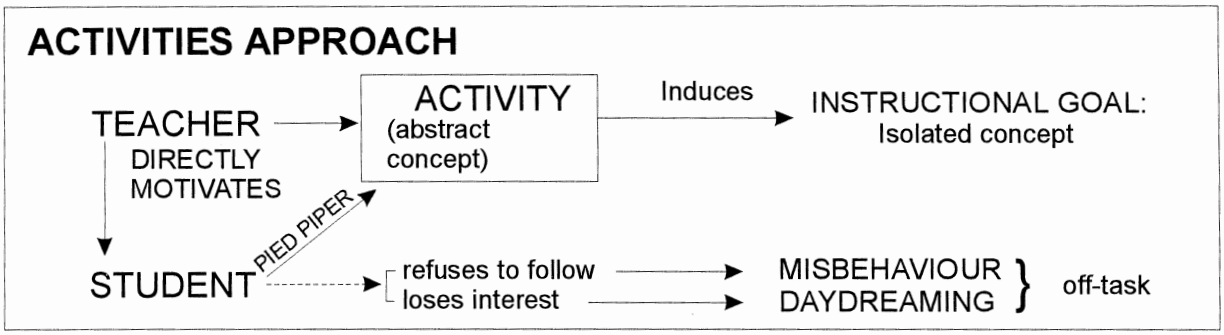


Diagram 4: *Here the teacher's short-term instructional goal is to teach an abstract concept. But because a lifeless abstraction cannot intrinsically promote or stimulate acceptance by students as their own personal musical goal, the teacher must directly motivate the class; the students more or less willingly, but blindly, follow the lead of the teacher as their main conscious goal of the moment. Hence their willingness to participate depends largely on the immediate entertainment value of the activity and its implementation by a personable teacher (the "Pied Piper"). At best, what is learned is a verbal abstraction (discursive understanding) or some incremental or short-term gain in an atomistic skill. However, often students may refuse to pursue the enticements of the teacher or may lose interest quickly, resulting in off-task daydreaming or misbehavior.*

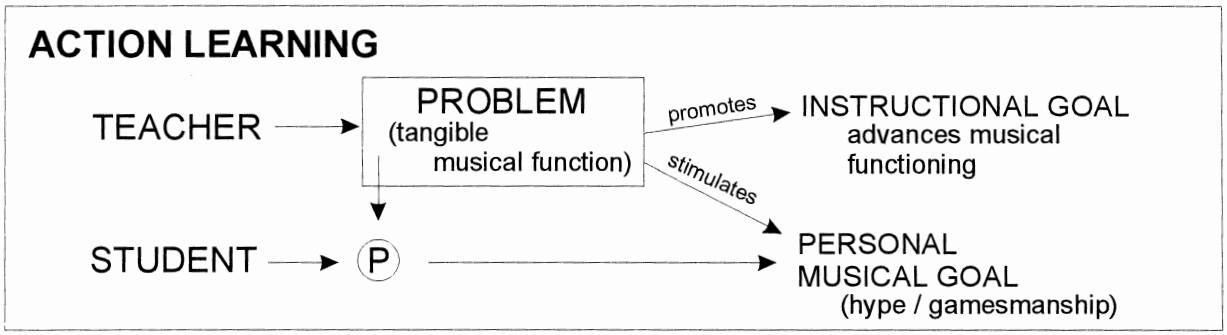
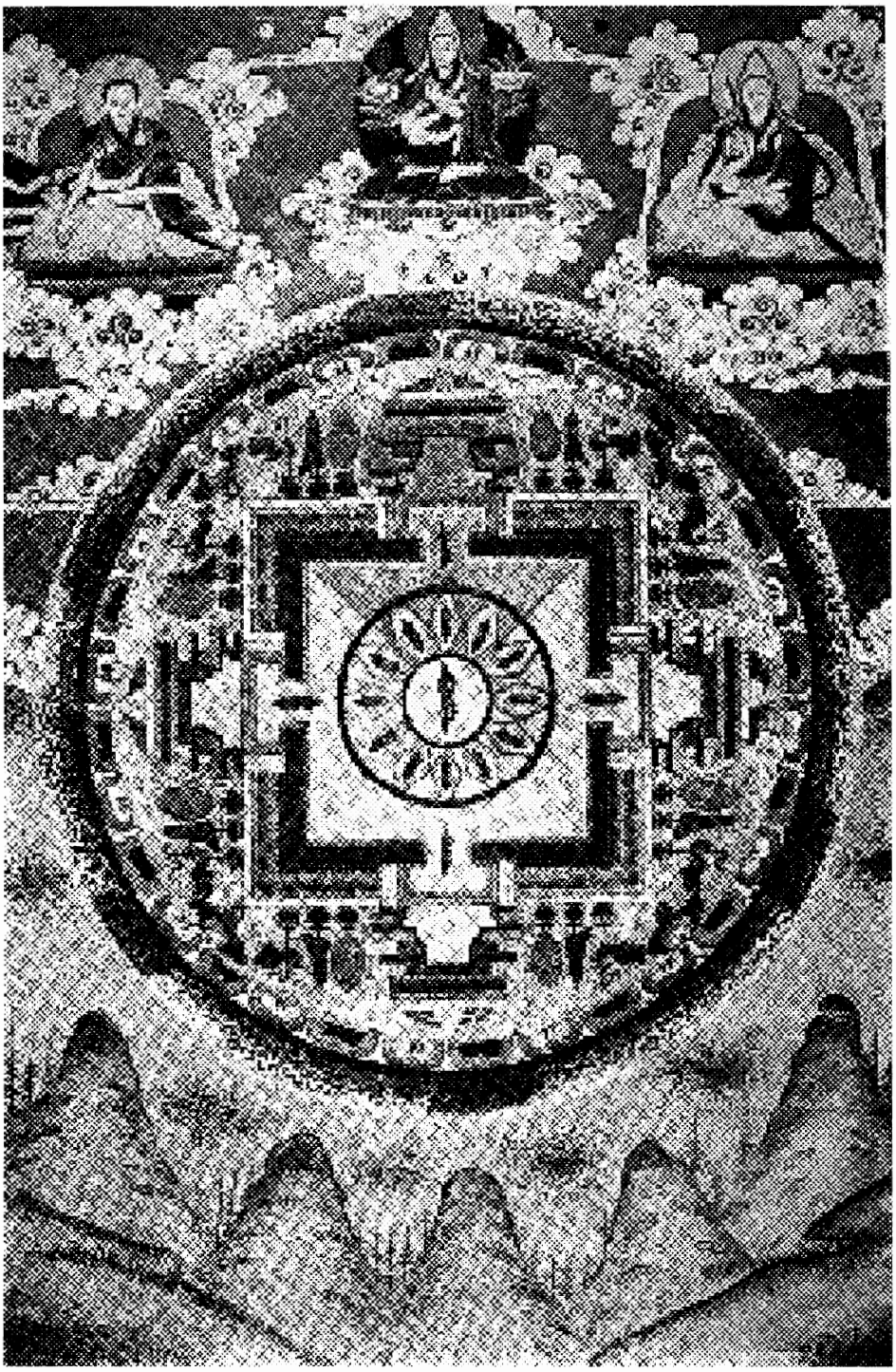


Diagram 5: *With action learning, the tangible musical function brought into focus in the compositional problem (P) devised by the teacher becomes the student's conscious musical goal. The hype or gamesmanship may initially capture students' imaginations, but done properly, this eliciting of interest is intrinsic or contributes to intrinsically musical ends. The sense of relevance contributed when students are allowed choices concerning certain limitations also stimulates acceptance of the teacher-set problem as their own personal goal for the moment, while the musical challenges of the specified limitations directly promote the teacher's instructional goals for advancing one or more musical functions. These limitations thus provide the teacher with specific control over the direction and nature of the skills, understandings, and attitudes elicited and improved.*



An example of a ***yantra***, a mandala used as an instrument of contemplation.

Diagram 6

The Creative Philosophy of the Mandala Approach to Music

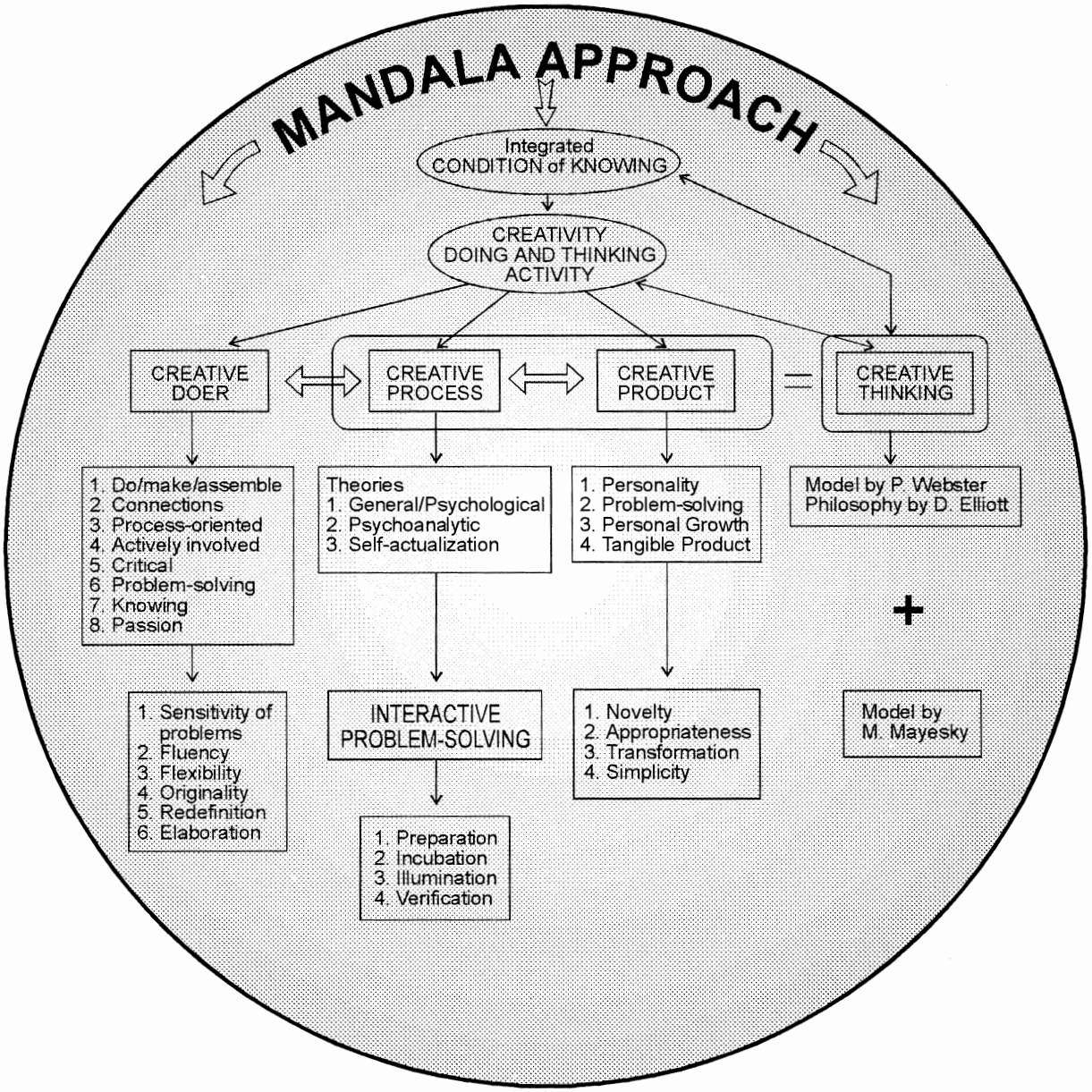


Diagram 7

The Interactive Mandala of the Creative Process

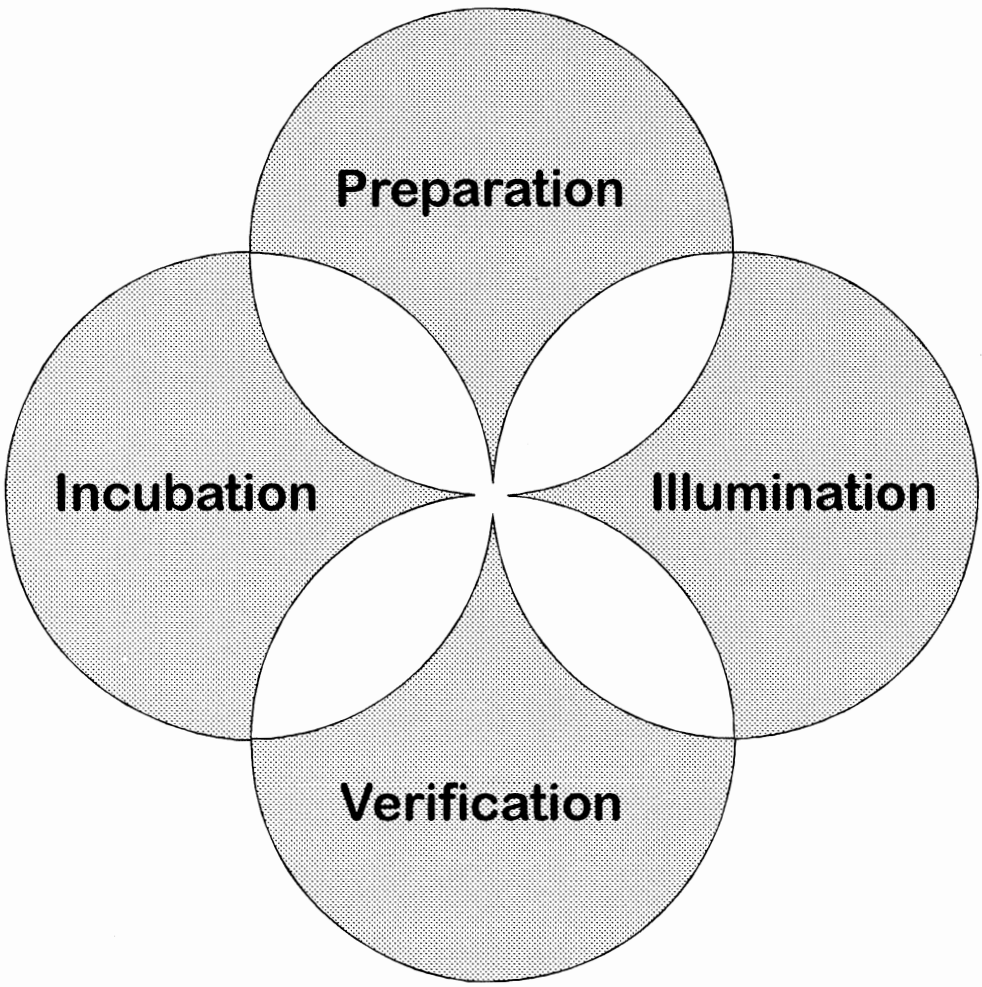


Diagram 8

(based on the creative stages of Wallas)

THE SUCCESS CYCLE

Diagram 9

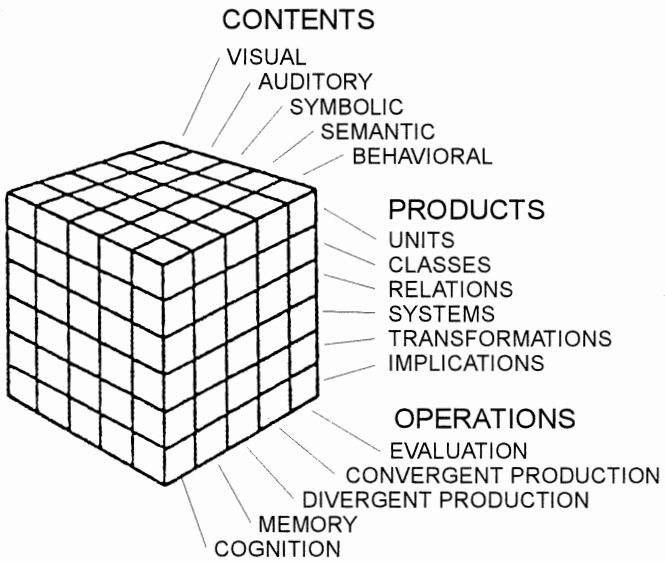


Diagram 10[244]

[244] J.P. Guilford, Way Beyond the I.Q., Buffalo New York: The Creative Educational Foundation, 1977.

The Integrated Mandala Continuum of Knowledge Model
- Music Education as Core Subject -

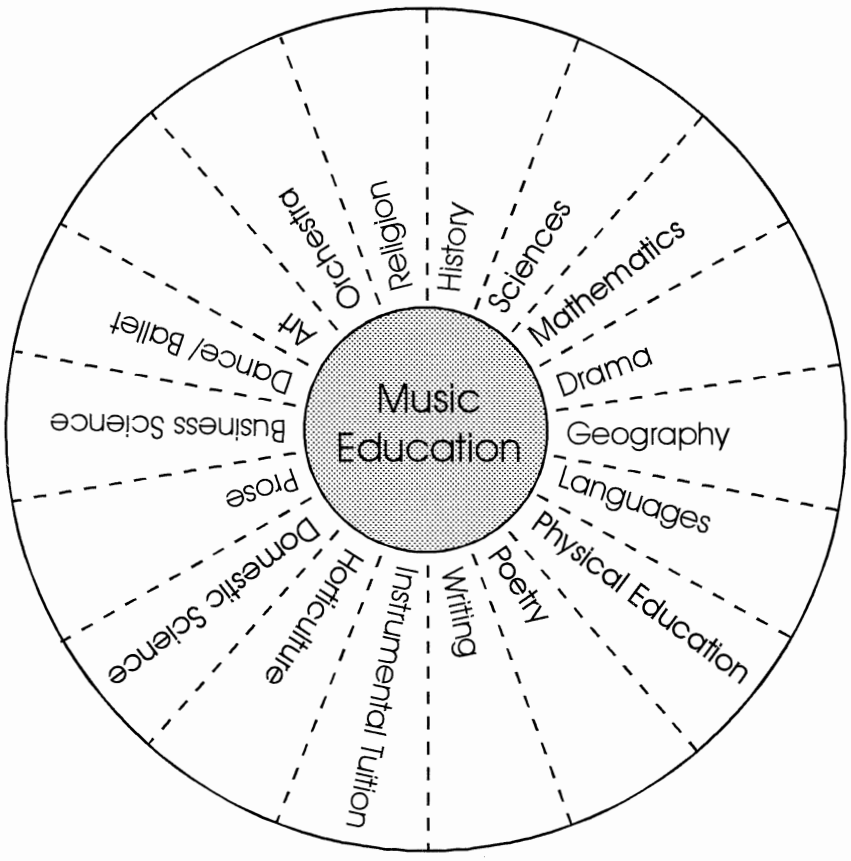


Diagram 11

The following comments are of interest:

a) The outer circle represents the holistic concept of the '*Mandala*' approach to music, as well as the ultimate aim of humanistic education, i.e. educating the whole person through a holistic education.

b) The inner circle represents music as a core subject and integrated subject of the school curriculum.

c) The dotted lines between subjects suggest, that subject knowledge is relative, as well as their respective boundaries. When the *'Wheel'* starts spinning an integrated continuum of knowledge coalesces, while transforming human or person qualities meaningfully.

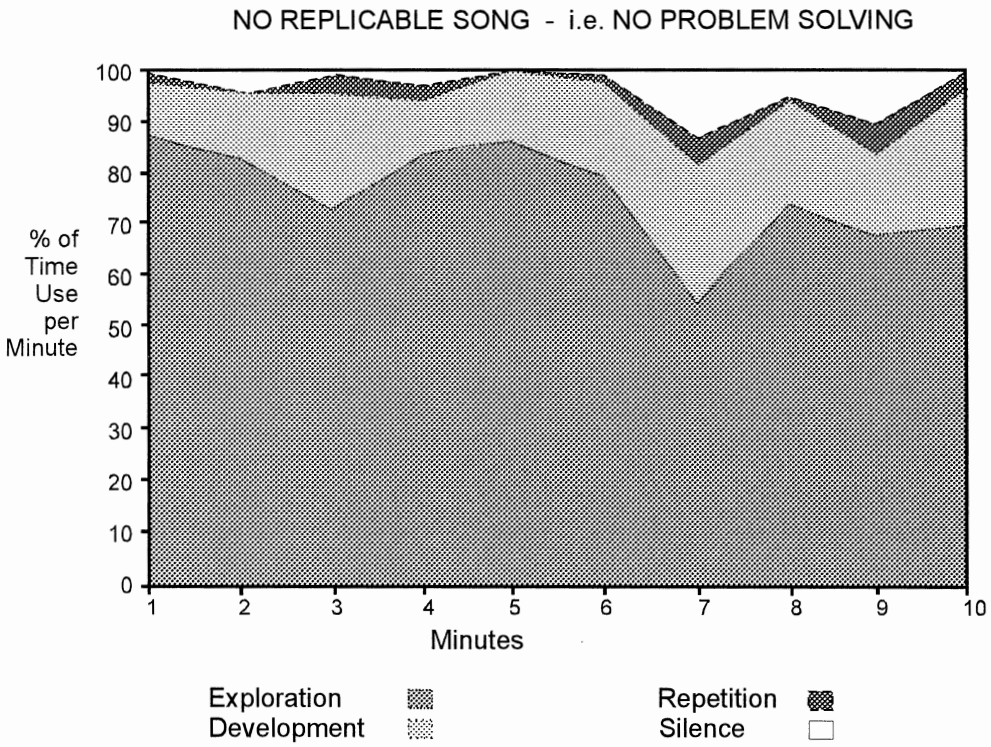


Diagram 12: Time analysis of composition period, composite subjects with replication ratings of 1.

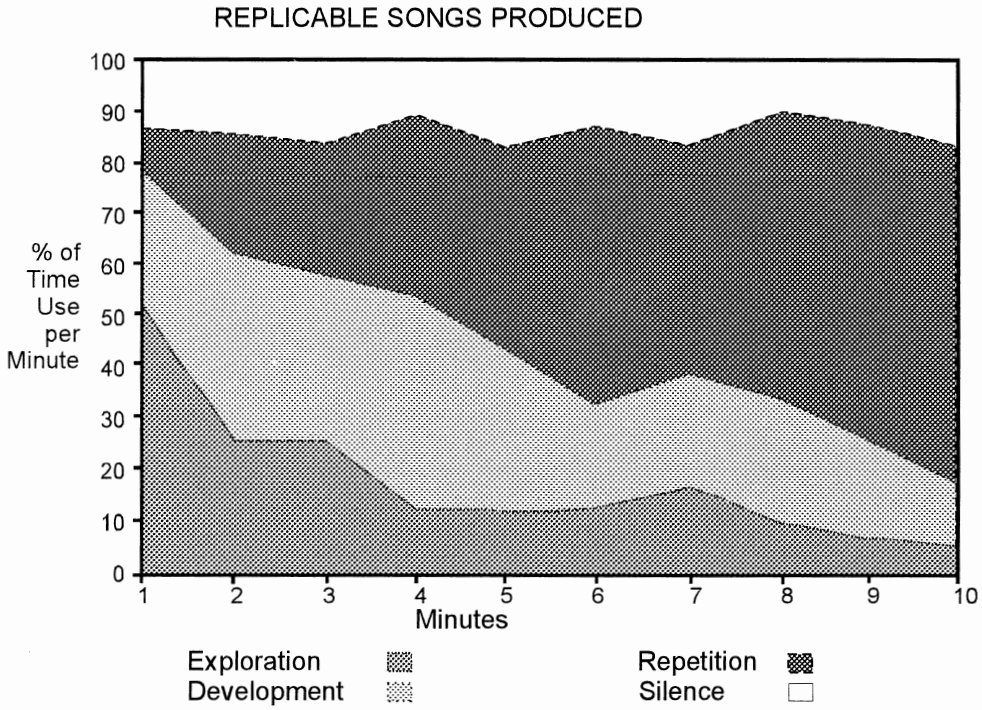
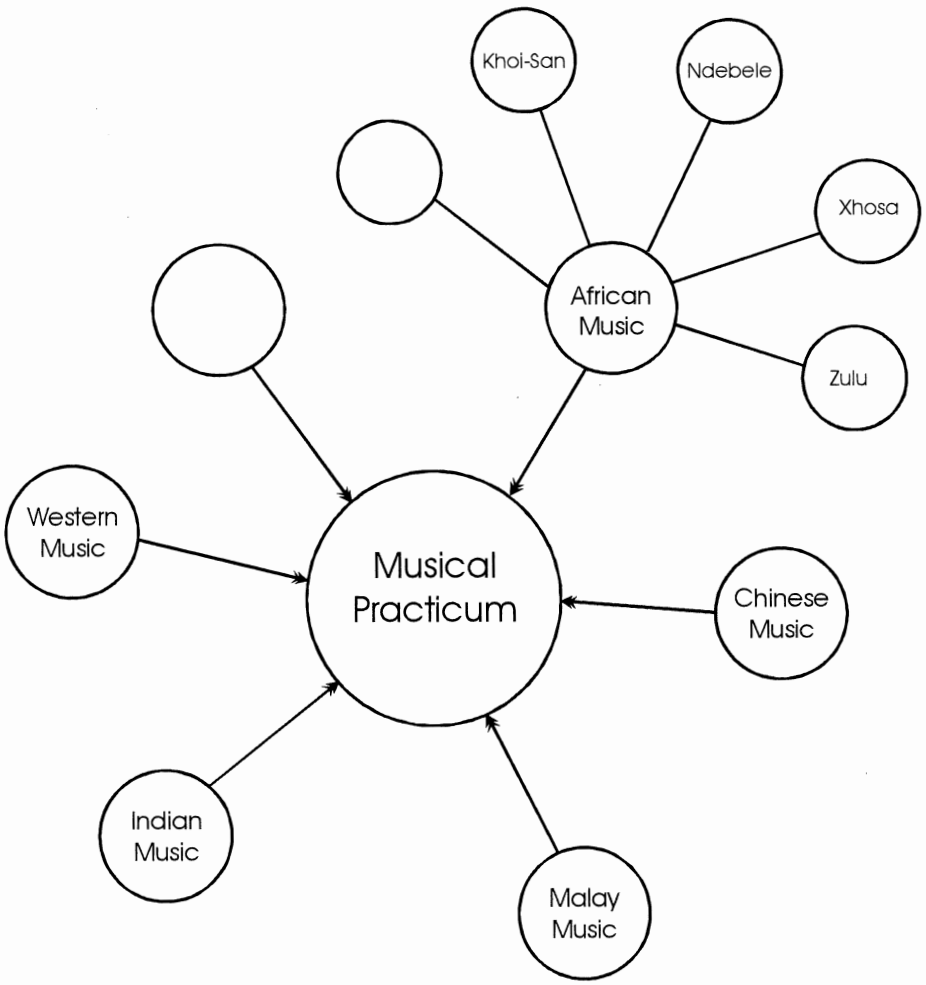
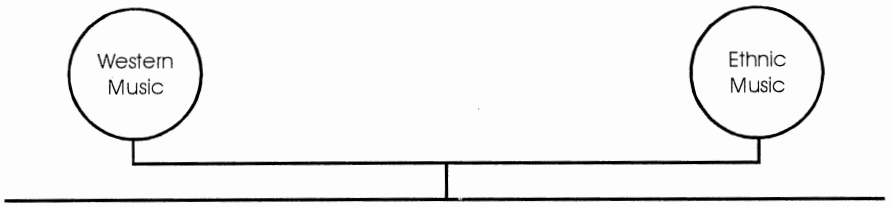


Diagram 13: Time analysis of composition period, composite subjects with replication ratings of 3.

Intercultural Mandala Model for South Africa



Intra-Curriculum



[based on the Singapore Model]

Diagram 14

Appendix C (Figures)

FIGURE 1[245]

AURAL FLEXIBILITY LIST

MUSIC QUALITIES	SECTIONS IN THE MUSIC										
	1	2	3	4	5	6	7	8	9	10	
a change in tempo											
a melody in lower register											
melody against melody											
thick, dissonant chords											
a crescendo											
a sudden change in volume											
a solo wind instrument											
a percussion instrument											
pizzicato											
a new theme											
a return to the "A" theme											
a question-answer effect											
number of qualities heard											
										Total	

[245]S. Feinberg, 'Creative Problem-solving and the Music Listening Experience,' Music Educators Journal, September 1974, pp. 53-60.

FIGURE 2[246]

MUSIC QUALITIES LIST

RHYTHM	1. Steady pulse 2. Irregular pulse 3. No pulse 4. Generally slow tempo 5. Generally fast tempo 6. Gradually slower 7. Gradually faster 8. A sudden change in tempo	**DYNAMICS**	23. Gradually louder 24. Gradually softer 25. Suddenly loud 26. Suddenly soft 27. Many dynamic changes 28. Few dynamic changes - generally soft 29. Few dynamic changes - generally loud
MELODY	9. Generally a stepwise melody 10. A very jumpy melody 11. A simple, songlike melody 12. A very elaborate melody 13. Melodic ornaments (trills, mordents)	**TONE COLOR**	30. Solo tone colors 31. Small performance group (fewer than fifteen) 32. Large performance group (more than fifteen) 33. Electronic sounds 34. Pizzicato effects 35. Cymbal crash 36. Drum rolls 37. Traditional tone colors 38. Unusual tone colors 39. Very high or low registers
HARMONY	14. Generally traditional harmonies 15. Many dissonant harmonies 16. A "key" feeling (tonal) 17. No feeling of "key" (atonal) 18. Shifting "key" feeling (modulation) 19. Same texture throughout - generally thin 20. Same texture throughout - generally thick 21. Homophonic texture (melody against chords) 22. Polyphonic texture (melody against melody)	**FORM**	40. Balanced ideas 41. Many repeated ideas 42. Question-answer effect 43. Only one section 44. Two or more sections (or themes) 45. "Freely" organized

[246]ibid.

FIGURE 3

THE MANDALA LESSON FORMAT

CREATIVE-ACTION-LEARNING **TEACHING TECHNOLOGY**

A PREPARATION AND PLANNING STAGE

I. MUSICAL ACTION GOALS/OBJECTIVES

1. Person action objectives/goals
2. Process action objectives/goals
3. Product action objectives/goals
4. Combination of 1 - 3

II. ORIENTATION STAGE

(Incubation)

1. Preparation with reference to aims, knowledge, learners, learning context, etc..
2. Initial Exploration >audiate > intentional.
3. Guessing, problem-finding, problem-solving and problem-reduction.
4. Learning context
5. Teaching learning processes

B. TEACHING AND LEARNING STAGE

(Incubation, illumination)

1. Going beyond what is obvious or familiar
2. Pose divergent-thinking problem(s) to be solved.
3. Analysing, reflecting, evaluating, 're'-factor
4. Further exploration, possible solutions.

C. SYNTHETIC AND EVALUATION STAGE

(Verification)

1. Showing mastery of skills and applying skills/knowledge to solve real/genuine musical problems
2. Applying solutions and realizations about divergent-thinking to real or genuine music problems

3. Solutions are evaluated and internalized for future learning tasks to enhance further learning and growth for the individual.	
4. Critical evaluations and interpretations of lesson descriptions, pupils' enthusiasm, enjoyment and process-folios.	Verbal, video and audio descriptions

FIGURE 4

LINKING MUSIC AND SCIENCE LESSON:

CREATIVE-ACTION-LEARNING | **TEACHING TECHNOLOGY**

A. PREPARATION AND PLANNING STAGE

I. ACTION OBJECTIVES

- To have the pupils get involved with sound *'or'* be interested in it (Process action objective *'how to'*)
- To have the pupils develop fluency, flexibility and elaboration with sound (person action objectives)
- To have the students *'make sounds into music'* (product action objective) by utilizing discovered musical elements.

II. ORIENTATION STAGE:

Sorting sounds

Put objects on a sound table and ask the children to sort them according to:

glasses, wooden blocks, pieces of iron, material, etc.

(i) how sounds are made with them:
striking, plucking, shaking, scraping and blowing.

(ii) the materials the sounds are produced from:
wood, skin, metal, glass, strings.

(iii) the children's own classifications: e.g.
fixed or variable pitch (one or more notes); making more than one sound at a time, able to make a sustained sound.

Tape recorder, VCR

Ask the children to make 'sorted sounds' music to listen to or move to, e.g. wood on wood, skin on skin, plucked and scraped. Record on tape and appraise.

B. TEACHING AND LEARNING STAGE:

Controlling sounds

Set up an investigation into how sound is altered and controlled in different 'instruments': e.g. a single string on a sound box, a slide whistle, a set of chime bars. Refer to

different musical practices. Choose one or more and let pupils experiment with sound in a practice. Allow for critical, independent and creative thinking-in-action as well as reflective conversations with different musical practices. Pupils and teacher should continuously listen for the *'backtalk'* from the results of actions.

single string on a sound box, slide whistle, chime bars

C. SYNTHETIC AND EVALUATIVE STAGE:

'make sounds into music'

Let the children use the range of sounds discovered to compose music which exploits variable musical elements which they have found within a chosen musical practice, such as the timbres, pitch, duration and volume. Evaluate and interpret.

FIGURE 5

LINKING MUSIC AND MATHEMATICS

CREATIVE-ACTION-LEARNING | **TEACHING TECHNOLOGY**

A. PREPARATION AND PLANNING STAGE:

I. ACTION OBJECTIVES:

(i) To have the pupils explore and transform number in music (process objective)

II. ORIENTATION STAGE: (for the very young)

(i) Ask the children (the very young) to make three-note tunes (three sounds long). Show the tune with three stones.

Stones, metal, wood pieces, Computer, software

(ii) A beat in a unit of measure of time. Not all music is based upon beats. Children in pairs play a beat together. Concentrate on keeping together and feeling the regularity of the beat. Change to a new speed and repeat.

(iii) Experiencing 'twice as long, half as long'
Practise dividing the beat by two's and by threes.

(iv) 'Patterns' (Just as patterning in number is included in algebra, so musical structuring is patterning according to the different musical elements).
Make a pattern of two sorts of sound: scrape-scrape-bang or wood-metal-wood. Now make a pattern with two lengths of sound or two pitches. Now make music using the patterns.

B. TEACHING AND LEARNING STAGE:

(i) Three-ness of three (for the very young)

Sing or play another short tune. How many sounds are in this tune? Sing it, clap it, think it, show it: one-to-one correspondence.

(ii) A beat is a unit of measure of time. Not all music is based upon beats.
Sing songs with a beat played as accompaniment, choosing songs of different speeds. Sing them without the accompaniment, feeling the beat inside.

(iii) Experiencing 'twice as long, half as long'
Explore further dividing the beat by two's and by threes in actual music. Analyze, reflect, evaluate.

(iv) 'Patterns'
Show the patterns using multilink cubes (data handling). Having made some patterns, use them in a piece of music which explores transformations of them, e.g. rotation, reflection, symmetry.

C. SYNTHETIC AND EVALUATION STAGE:

(i) Three-ness of three (for the very young)
Create your own little tune and perform it. How many sounds are in your tune? Sing it, clap it, think it, show it: one-to-one correspondence.

(ii) Create and perform your own song or music with a beat played as accompaniment by children.

(iii) Experiencing 'twice as long, half as long'
Make some music which is built by dividing beats in two's or dividing beats in threes, or both; or by building on sounds which are 'twice as long and half as long'.

(iv) 'Patterns'
Use computer software to make patterns and to edit and sequence them. Compose music using these patterns.

FIGURE 6

LINKING MUSIC, HISTORY AND GEOGRAPHY

CREATIVE-ACTION-LEARNING	TEACHING TECHNOLOGY
A. PREPARATION AND PLANNING STAGE	
I. ACTION OBJECTIVES:	
• To have the pupils gain insight into the music of other cultures ('Worldview') with reference to time, place and people (Process objective)	
• To have the pupils develop an aural awareness and sensitivity to sound through sound scape compositions (product objective)	
II. ORIENTATION STAGE:	
1. Let pupils listen with headphones to an African mbira player, 'mbanqanga' music, Indian classical music, etc.	audiotape
2. Encourage pupils to listen, then think and talk about the music. They should be encouraged to describe what they hear in musical terms. Taste does not play a role at this stage. Teacher should show openess of response and lead them to an appreciation and awareness of music which is initially strange and remote. They should hunt for links with their own music.	different materials to blow, pluck, skins etc.
The following can serve as focus for listening and practical work:	
i. Sorts of sound used: blow/pluck, skin/metal, long/short.	
ii. rhythmic patterns, quality of rhythm, polyrhythms, etc.	
iii. melodic patterns: range, shapes of line	
iv. scales, Ragas modes, sets of notes used.	
v. harmonic devices, e.g. drones, more than one part at a time.	
vi. form: repetition, call and response, dance forms.	

B. TEACHING AND LEARNING STAGE

1. Music for movement work

   Make or reconstruct an African dance, to go with African dance music or make or reconstruct an Malay/Indian dance with Malay/Indian music, etc.

2. Starting point for compositions

   Reconstruct some aspects of the music through composition or improvisation. Take one musical idea, e.g. the rhythm pattern or melodic phrase, etc. to reconstruct.

C. SYNTHETIC AND EVALUATION STAGE

1. Music in any culture sometimes has a particular social purpose, e.g. wedding songs, etc. Ask children to compose music for a specific musical purpose by manipulating the musical elements in a particular way, e.g. make a lullaby, make music for walking into assembly, make music for calling people to a celebration.

* Also see a 'Music in Action Project', (The Real Life Zone Competition which is an action learning competition).

2. Let pupils perform music from specific times and places, e.g. In 'Rock a bye baby', the music fulfils the lullaby function whereas the words ('When the bough breaks) express the adult fears and insecurity of family life at the time. Singing a simple Gregorian chant, with its long-breathed lines, can help children to sense something of monastic life in the twelfth century.

* **MUSIC IN ACTION PROJECT**

THE REAL LIFE ZONE MUSIC COMPETITION

A. Musical guessing games. No 'yessing', please! (30 sec.)

B. Compose your own music for an advertisement of the Real Life Zone Music Competition to be broadcast on S.A.B.C. television and radio (30 - 45 seconds).

C. Transform a literary work into a musical composition (1 minute).

D. President Mandela has arrived in Worcester. Compose your own welcome song. (1 minute)

E. The story of Bibi Dawood, an exile of South Africa, is going to be produced on film. Compose the theme music for this film. (1 minute)

F. Listen to Wolfgang Amadeus Mozart's "Twelve Variations on "Ah, vous dirai-je, Maman" k.265. Discuss and think about how Mozart developed the simple theme. Concentrate on the intensity, mood, shifts of tempo, key or texture (listen, reasoning, discussion).

After listening to the piece:

1. Take the "Ah vous dirai-je Maman" theme and compose a variation in either the key of F major/minor or C major/minor.
2. Play the variation on an instrument.
3. Write out the variation that has been composed (calligraphy and notation) (1 minute).

FIGURE 7

LINKING MUSIC AND ART

CREATIVE-ACTION-LEARNING **TEACHING TECHNOLOGY**

A. PREPARATIONAL AND PLANNING STAGE

I. ACTION OBJECTIVES:

To have the pupils understand through action-learning sound-mixing in music. Pupils should also experience the close affinity between sound-mixing (music) and colour-mixing (art).

II. ORIENTATION STAGE:

a) Carry out a colour-mixing activity with different blues, let this lead into paintings of different skies.

b) Carry out sound-mixing activities, trying combinations of different timbres.

B. TEACHING AND LEARNING STAGE:

Make a 'patch' of music in which:

i. three timbres blend;
ii. two timbres blend and one 'resists';
iii. all three remain distinct.

C. SYNTHETIC AND EVALUATION STAGE:

(a) Make music which uses one or more of these 'patches' and is about blending the sounds themselves.

(b) Analyze and discuss differences and similarities between mixing colours in paint and mixing timbres in sound OR discuss the differences between the two media of art and music.

FIGURE 8

LINKING MUSIC AND LANGUAGE

CREATIVE-ACTION-LEARNING	TEACHING TECHNOLOGY
A. PREPARATION AND PLANNING STAGE	
I. ACTION OBJECTIVES: Pupils explore and experience how music and language intertwine with each other	
II. ORIENTATION STAGE: Pupils make lists of words that rhyme.	
B. TEACHING AND LEARNING STAGE:	
Choose some of these rhymes and turn them into chants or songs, exploit the possibilities for different uses of the voice. Record these.	Tape recorder/V.C.R.
C. SYNTHETIC AND EVALUATION STAGE	
Listen to the recordings and discuss the way the words and the music interact OR ask pupils to compose and perform short 'Rapp' or 'Hip-bob' compositions.	

FIGURE 9

LINKING MUSIC AND MOVEMENT

CREATIVE-ACTION-LEARNING **TEACHING TECHNOLOGY**

A. PREPARATION AND PLANNING STAGE:

I. ACTION OBJECTIVES:

To have the pupils interact actively movement with music and vice versa.

II. ORIENTATION STAGE:

(a) movement and stillness - moving with music. Let pupils move (by any means) and stop, holding a still position. Repeat several times. Pupils should feel the contrast between movement and stillness. Vary the periods of silence versus moving. Match movement and stillness with instruments playing and stopping. Match the movement quality to the musical sound and vice versa.

B. TEACHING AND LEARNING STAGE:

(a) Sequencing

Replace stopping with a different movement, a different musical idea. Make a symmetrical shape, then an asymmetrical shape. Try to balance the shape of the sequence and practise the sequence until it develop its own dynamic and flow. Compare with sequences in music. With a partner, run your two sequences side by side. Work them into a new sequence for two. Take turns in the class to watch and 'listen' to these silent partner sequences. Think about the ways the two partners match, follow, oppose, interact. Listen to music that works like this.

(b) Matching and interacting

Use three movement words, e.g. 'creep', 'pounce' and 'melt', to suggest a movement sequence. Practise the sequence

and then match it with music that reflects the changes of quality, speed and dynamics.

Two together: find ways of crossing space, matching movement and keeping together. Then try one playing, one moving. Take turns to move and stop. Then alternate music with movement, then music with music. Listen to music in which two keep together or alternate or interact.

(c) Moving with music-'active listening'

Use free movement response as a form of 'active listening' to music.

(This needs to be built up on a basis of work which gives the children a vocabulary of movement (movement repertoire) to draw on.

Use structured movement sequences, along the lines of traditional dance, as a form of listening (analysis) to help children grasp the rhythmic and phrase structures of music, e.g. in a circle hands linked, step in time with singing a simple song, make a pattern of stepping, changing direction at the end of each line. Let the children make a set sequence of movements: e.g. '8 claps, 8 jumps, 16 skips anywhere you like) to fit with set music such as an eightsome reel, as a way of grasping beat and structure.

C. SYNTHETIC AND EVALUATION STAGE

Use choreography of movement sequence for a chosen piece of music as a form of listening response and analysis together. Work on a sequence with the children over weeks through careful listening, trying out ideas and helping them to work out their own shape and structure for dance with music.

FIGURE 10

DUAL RATIONALE OF MUSIC

CREATIVE-ACTION-LEARNING	TEACHING TECHNOLOGY
A. PREPARATION AND PLANNING STAGE	
I. ACTION OBJECTIVES:	
(a) To have the pupils indulge in thoughtful 'guessing' (making connections) as a precreative activity for composition, i.e. think like a composer, while introducing elements of music such as timbre, pitch, etc.	
(b) To have the pupils understand the link between music and 'Real life' connections.	
II. ORIENTATION STAGE:	
Create sounds by using a combination of two objects that are highly visible in the room, e.g. chalk and book, pencil and chalkboard, pen and desk, etc. Ask students to close their eyes, while volunteers imitate the sound with their voices. Ask pupils to make decisions based on thoughtful guesses. After each attempt, have the students close their eyes and repeat the original sound. Discuss differences between the sound made and the original. Praise each response (building self-image) and emphasize that the 'right' answer is not nearly so important, as the thoughtful guesses and many interesting new sounds that would not have been heard otherwise. If nobody duplicates the sound after a number of responses, let the class see the sound being made as well as hear it. Repeat the same experience only this time let each student create his/her own original sound. Connect this experience with real life, e.g. "If things don't work out the first time, try something different".	chalk, pencil, blackboard, pen, desk, etc.
B. TEACHING AND LEARNING STAGE	
Divide the class into groups of four. Ask pupils to create a thirty-to-forty-five-second sound composition using any	

sounds experimented with during the orientation stage. Have each group arrange its sounds using principles of unity and variety to make compositions interesting. Encourage them to experiment with changes in dynamics and tempo. Ask each group to perform its sound composition and explain how they arrived at choices. Each group should also evaluate their respective compositions and discuss possible changes. After discussions and evaluations, let pupils now refine their respective compositions. Make it clear that the refinement process is the real work of the composer and is the aspect of creativity that is the most essential and, for many, the least desirable. Perform the revised compositions.

C. SYNTHETIC AND EVALUATION STAGE

Let the class select its favourite portions from each group composition. Using the principles of unity and variety, restructure these various sections into one class composition lasting no more than ninety seconds. Emphasize possibilities and their relationship to the decision-making process. Draw upon Real-life Zone connections by asking questions such as:

(a) What if your funds were unlimited and you could buy all stereo equipment and recordings you wanted: What item would you choose? Why? What if the situation was just the opposite and you had to save for a long time to make a purchase? What would you buy first? Why?

(b) What if you were a rock recording star - how would you keep up with your neighbourhood friends?

Have the class create additional compositions using strictly vocal sounds other than singing.

FIGURE 11

SOUND COMPOSITION LESSON

CREATIVE-ACTION-LEARNING **TEACHING TECHNOLOGY**

A. PREPARATION AND PLANNING STAGE

I. ACTION OBJECTIVES:
Have the pupils construct an A.B.A. composition, approximately 10 seconds per section.
Pupils should show musical interpretation of two contrasting feelings, such as happy-sad or tense-relaxed. Use only metallic, glass, and ceramic sounds. Limitations set by teacher to focus attention.

II. ORIENTATION STAGE: 'Hyping'/ gamesmanship
Arrange the class in a V (horseshoe) or U (U-shape) shape so that the open space presents a stage and so that the pupils can interact freely, diminishing the teacher as focal point. Also arrange the chairs/ desks into small composition groups as widely separated or space allowed. Through a process of 'hyping' (presenting the problem in a way that stimulates the pupils imagination) or 'gamesmanship' (gamelike outcome of problem) let the pupils decide which pair of feelings they will use.

B. TEACHING AND LEARNING STAGE:

1. Let the pupils plan the kinds of sounds to use, for the feeling of the first section, i.e. section A_1. (The teacher should always insist on time limits throughout the lesson).
2. Let the pupils experiment with those sounds and organize their first section.
3. Let the pupils plan the kinds of sounds to use for section B. Pupils must make sure that section B is in contrast to section A.

4. Explore those sounds and organize that section.
5. Let pupils rehearse section A and B. Evaluate, refine, re-do, etc.
6. Problems encountered could be displayed on the chalkboard or sheets of direction given to each group.
7. Let pupils decide how they are going to tackle the last section, i.e. section A_2. Will it be an exact repetition of A_1 or will it be different in some way. Organize that section.

C. SYNTHETIC AND EVALUATION STAGE:

Audiotape each and every stage of the sound composition. Let the groups rehearse their respective sound compositions. Remind pupils that a composition has no existence apart from performance. A good performance represents your musical ideas well. Refer back to the 'hype' problem on the chalkboard and through 'gamesmanship' let the other groups determine, by listening to each others compositions, which sounds correspond the sets of feelings. Let groups notate (standard or invented graphic notation) their respective sound compositions, i.e. pupils embark on the process of building their own original school music repertoire.

FIGURE 12

IMPROVISATION LESSON ('FOUND SOUNDS')

CREATIVE-ACTION-LEARNING	TEACHING TECHNOLOGY

A. PREPARATION AND PLANNING STAGE

I. ACTION OBJECTIVES:

(a) To have the pupils experience improvisation and composition through the use of 'found sounds'

(b) Pupils compose their own 'found music'.

II. ORIENTATION STAGE:

Let students explore these 'instruments' and demonstrate how they can produce meaningful sound with them as well as methods of performance. Set up a tape recorder and record the pupils' efforts in order to enhance sound sensitivity and awareness.

Metals: e.g. pans, pots cans, refrigerator racks, etc.
Glass: bottles, jugs, glasses, jars.
Ceramics: plates cups, tiles
Plastics: straws, pens, combs, food package containers.
Wood: boxes, rods, dowels, boards, etc.
Paper and cardboard: bags, newspaper,
cellophane, candy wrappers (for blowing), cartons and tubes, paper can be torn, ripped, crumpled, rubbed and scrubbed.
Rubber bands:
(stretched over resonating containers).
The human body and voice.
Tape recorder.

B. TEACHING AND LEARNING STAGE

Let the pupils try the following warm-up projects with the whole class:

(a) Call and response:
One student acts as the leader by creating a rhythm or pitch organized phrase on his or her instrument from the centre of the group (A circle is the best shape for class interaction). The group/class responds by imitation, variation, contrast, augmentation, diminution and so on.

(b) Antiphonal: Have two to four groups go to different corners of the room and call and answer each other with patterned group phrases. Include elements of tempo, volume and timbre (each group could have one type of material) in various sequences. Set up clear signals so that the groups know exactly when to start playing.

(c) Conversations: Let the pupils choose partners and then have each pair converse with each other using an instrument as 'voices'.

(d) Orchestra: Divide the class into groups of similar instruments and arrange them into a circular orchestra. Use a student or conductor and let him/her indicate clearly which group should improvise. Let the conductor use different arm variations to indicate different meanings, e.g. arms raised high - loud, arms lowered - soft, etc. Use two conductors and work out various signals between them. Note the gradual shifting of timbres that results.

(e) Number keyboard:
Write the following numbers on a blackboard in the following way:

1 2 3 4 5 6 7
8 9 10 11 12 13 14
15 16 17 18 19 20 21
ALL

Assign a number to each pupil. The teacher as conductor (for the first time) points to different numbers on the 'keyboard' (blackboard) with the students responding on his/her instrument. When the teacher lifts her hand from the number the sound should stop. Make different variations,

e.g. a short line under a number means a sustained sound, 'ALL' means 'tutti' (use this sparingly), various timbre patterns can be created by repeating number sequences, textures can be built up with the use of lines and virtuosity can be created by moving fast from one number to the next. Choose a student conductor and repeat the work. Record these exercises.

C. SYNTHETIC AND EVALUATION STAGE

Let pupils listen to the recorded 'found music' or 'sound' compositions. Through analysis, let the pupils listen, discuss and evaluate the works. Refer to aspects or elements such as pitch, timbre, tempo, duration, volume, meter and rhythm. Introduce or discuss (depending on the age of pupils) music design concepts such as phrase, texture, foreground, background, A.B.A form and motive. Also encourage affective and imaginative responses, e.g. what were the emotional effects of some of the works? What kinds of moods and feelings were conveyed?, etc. Let pupils (as a further project) notate 'found music' in originally devised notation systems, e.g. pictographs, diagrams, coloured markers, points, size and shape notations, fabrics, etc.

FIGURE 13[247]

ANALYSIS LESSON

CREATIVE-ACTION-LEARNING **TEACHING TECHNOLOGY**

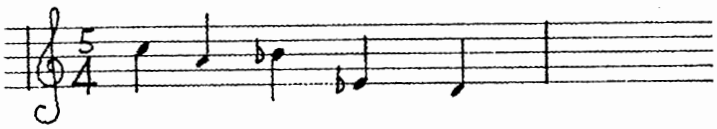
A. PREPARATION AND PLANNING STAGE

I. ACTION OBJECTIVES:

To have the students realize the importance of being open and flexible when listening to music while actively performing or improvising music.

II. ORIENTATION STAGE:

Familiarize the class with the following motif (from the third movement of Bartok's 'Music for Strings, Percussion and Celesta'):



Play a recording of the music or perform/improvise another example and ask the class to listen for the motif. Have the individual students describe what they heard. Make note of some of the ideas they may have missed, e.g.:

i. the motif being repeated more than ten times;
ii. the motif being played backwards (retrograde);
iii. the motif being repeated twice as fast and twice as slow (diminution and augmentation);
iv. the motif being played as a question - answer effect.

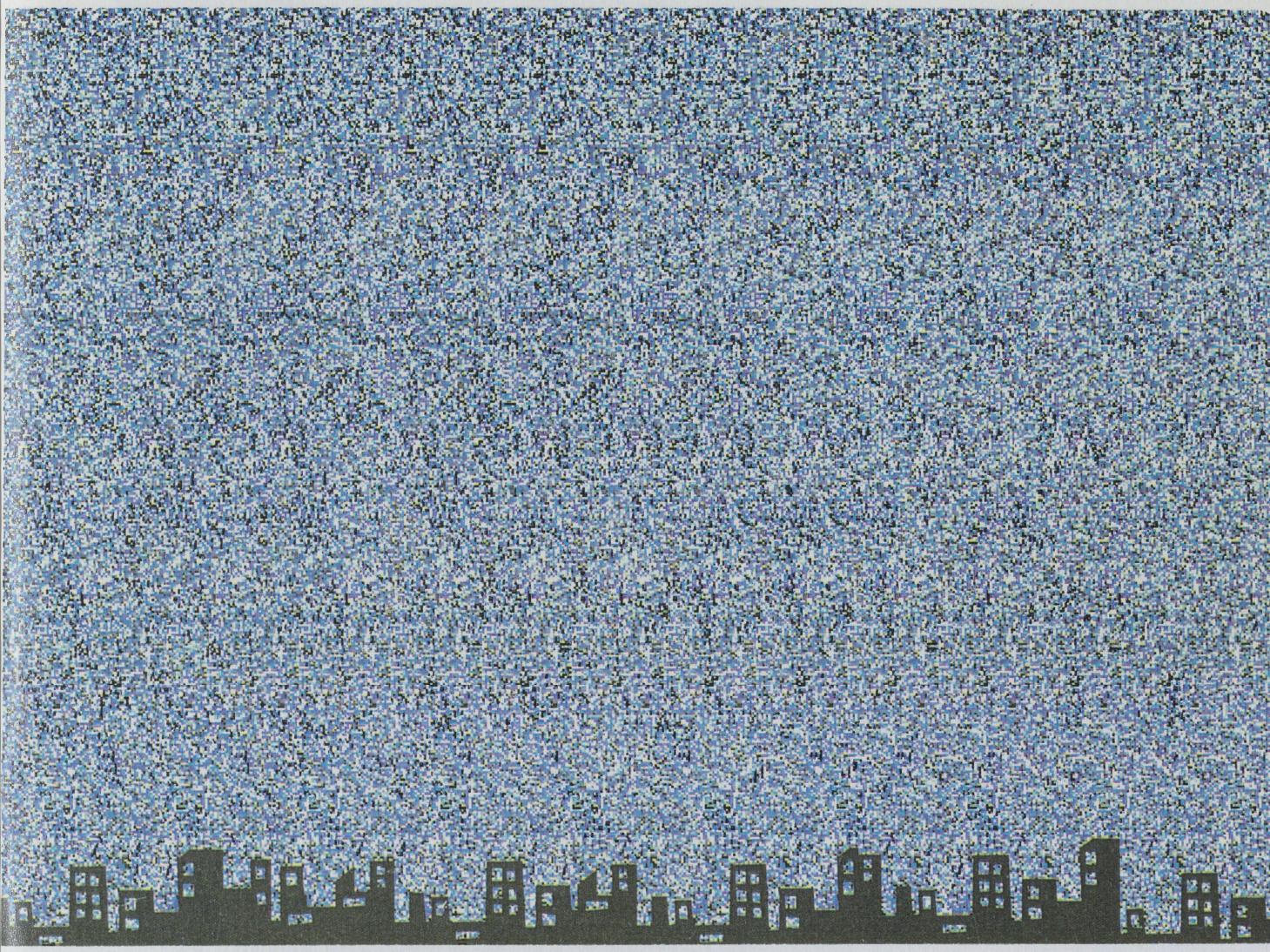
Ask the class why they did not detect these ideas. The pupils should realize that they could not recognize these things (and others) in the music, because they were limiting their listening to only the general sounds of the orchestra.

B. TEACHING AND LEARNING STAGE:

Emphasize the necessity of going beyond what is obvious or familiar by giving the students a divergent-thinking problem to solve, such as the following autostereogram:

Autostereogram

[247] An analysis lesson should form an integral part of performing, composition or improvisation lessons.



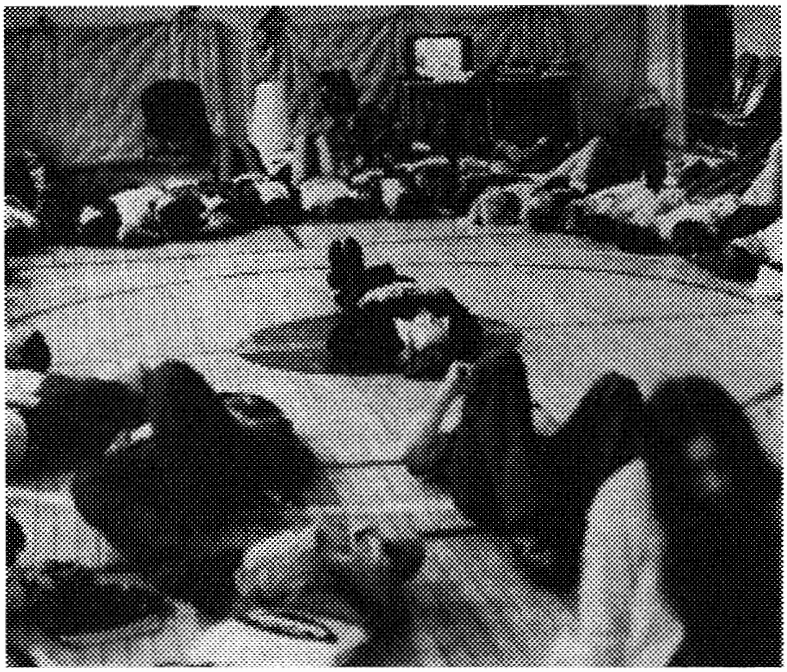
Instructions: Squint by looking at an imaginary point past the page. Try and relax your eyes so that the pattern goes out of focus. A 3D image will appear. Slowly move the page further away so that you can see the whole image.

Can you see the 3-dimensional image?

Replay the Bartok example or another example, to give students an opportunity to listen more divergently this time. Ask the class to indicate other qualities they were able to perceive in the music (let them use the aural flexibility lists (fig. 1 and 2). Replay the example to amplify the responses. Arrange the class so that the whole body becomes an ear. (See Murray Schafer's 'Mandala' arrangement on the floor).

Audiotape

Bartok: 'Music for Strings, Percussion and Celesta



The whole body is an ear: Murray Schafer leads the class in relaxation exercises, gradually inducing concentrated listening. The students are arranged in a circle, with Mr Creativity (Murray Schafer) positioned at the center.
(Murray Schafer, Creative Music Education, Schirmer Books, 1976, p. 271.)

C. SYNTHETIC AND EVALUATION STAGE

Apply the realizations about 'divergent listening' by having the class describe what they hear in another work (the third movement from Brahm's Symphony No. 4 in E-minor, Op. 98, a mirimba ensemble work 'Ruffaro', African Mbira, etc.)

Flexibility lists
Mirimba ensemble, Ruffaro, African Mbira

Pose such 'text' questions as:

i. Who can clap the rhythm of the main motif?
ii. Who can hum it?
iii. Who can play it on the piano/mbira, etc.?
iv. Who can write it down? (own notation system)
v. How many times was it repeated?
vi. How was it changed?

Re-emphasize the idea that the reflective music listener is one who is open and flexible in his or her listening while actively performing/ improvising music.

FIGURE 14

INTERCULTURAL PERFORMANCE LESSON

CREATIVE-ACTION-LEARNING

TEACHING TECHNOLOGY

A. PREPARATION AND PLANNING STAGE

I. ACTION OBJECTIVES:

To have the pupils learn a percussion ensemble selection from Zimbabwe in a rhythm called 'shangara', and the song 'Maiwe', which can be performed and danced with it.

High, medium, low, and very low conga drums. Tone block, Beater, Gourd rattle or maracas.*

II. ORIENTATION:

Teach the basic pattern (kushaura) of 'Shangara', a rhythm which underlies a type of Shona song. Have the students play the pattern (kushaura) until it is accurate, consistent, firm and without accent. The pattern on the high pitched drum is:

(12) R L R L R L R R L R R L

K R = right hand

L = left hand

() = heel of the hand on the fore edge of the drum.

O = centre of the drum with cupped hands. The rest of the patterns are open sounds, played with fingers near the rim, or edge of the drums.

B. TEACHING AND LEARNING STAGE:

The medium drum plays:

(12) R L R - - R L R R L R

This 'kudaira' or responding pattern begins on the second right-hand stroke.

The lower drum plays:

(12) R L R R L R - R R L R -

This responding pattern 'kudaira' begins at the same time as the basic pattern or 'kushaura'.

The lowest drum plays:
(44) L R - (R L R -) R R L R L R R - (R L R - - R L R R L R -) R R L R L R R - (R L R - - R L R R)

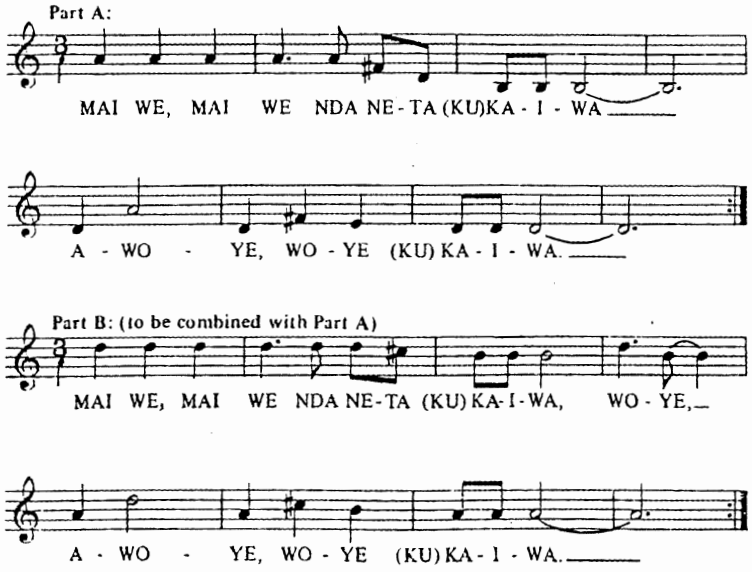
This improvisation pattern begins on the second stroke [left] of the first responding pattern, which is marked with an asterisk [*].

While the parts are being played, the rest of the students can clap the basic pattern of 'shangara' with the higher drum:
(12) Clap rest clap rest clap rest
Clap clap rest clap clap rest

The rattle or maracas part is:
(3) Rest shake shake (This pattern begins on the first stroke (right) of the basic or 'kushaura' pattern).

C. SYNTHETIC AND EVALUATION STAGE

The two-part song 'Maiwe' can be sung along with 'Shangara'. The words are: ('Mother, oh mother, I am tired and bothered). Singers can start on whatever pitch is best for their singing voices. 'Maiwe' begins at the same time as the 'kushaura' pattern:



Repeat all patterns and singing thoroughly without boring the pupils. Let pupils dance to 'shangara' by having individual dancers mark the 'kushaura' pattern with their feet and then improvise and take turns making up movements always using the 'kushaura' of 'shangara' as the basic pattern (Dancing can also form part of a future lesson).

* Let pupils build their own instruments as an action-learning experience. (Claire Jones, Making Music. Musical Instruments of Zimbabwe, Harare Zimbabwe, 1992.)

BIBLIOGRAPHY

ABBS, P. Living Powers. Lewes:Falmor Press, 1987.

ABBS, P. The Symbolic Order. Lewes: Falmer Press, 1989.

ABELES, H.F.; HOFFER, C.R.; KLOTMAN, R.H. Foundations of Music Education. Schirmer Books, New York, 1984.

ACKINNON, D.W. In Search of Human Effectiveness: Identifying and Developing Creativity. Buffalo, New York: Creative Educational Foundation, 1978.

AFRICAN NATIONAL CONGRESS. Reconstruction and Development Programme. Umanyano Publishers, Johannesburg, 1994.

ALPERSON, P. 'On Musical Improvisation.' Journal of Aesthetics and Art Criticism, 43, no.1, Fall 1984.

AMOAKU, W.K. 'Keynote Address: World Music; Where are we heading?' Proceedings of the 6th National Conference of South African Music Educator's Society, 12-15 July 1995.

ANDERSON, C.C. 'Some Correlates of Originality.' in A.J. Cropley. Austrian Journal of Psychology, Vol. 18, 1966.

ANDERSON, H.H. 'Creativity as Personality Development.' In H.H. Anderson (ed.) Creativity and its Cultivation. New York: Harper and Brothers, 1959.

ANDERSON, W.M.; CAMPBELL, P.S. Multicultural Perspectives in Music Education. Music Educators National Conference, Reston Virginia,1989.

ANDERSON, W.M. Teaching Music with a Multicultural Approach. Music Educators National Conference, U.S.A., 1991.

ANSTEY, G. 'Inside Personality: The girl next door.' Sunday Times, 14 January 1996.

ARIETI, S. Creativity the Magic Synthesis. Basic Book Inc. New York, 1976.

ARISTOTLES. Poetics. Translated by Gerald F. Else, Ann Arbor: University of Michigan Press, 1967.

ASPIN, D.N. 'Book Reviews.' International Journal of Music Education. no.27,1996.

ATKINSON, J. 'Towards a Theory and Philosophy in Music Education.' Music Education: Facing the Future, Proceedings of the 19th World Conference of the International Society for Music Education, Jack P.B. Dobbs (ed.), Helsinki Finland, 1990.

BALKIN, A. 'What is Creativity? What is it Not?' Music Educators Journal, Vol. 76, no.9, May 1990.

BALKIN, A. 'The Creative Music Classroom: Laboratory for Creativity in Life.' Music Educators Journal, January 1985.

BARRON, F. Creative Person and Creative Process. New York, 1969.

BARRON, F. 'The Disposition Towards Originality.' Journal of Abnormal and Social Psychology, 51, 1955 in Vernon, P.E. (ed.) Creativity. Hammondsworth: Penguin,1970.

BECKER, J. 'Aesthetics in Late 20th Century Scholarship.' The World of Music. 25, no. 3, 1983.

BENNETT, S. 'The Process of Musical Creation: Interviews with Eight Composers.' Journal of Research in Music Education, no. 24.

BIKO, S. I Write What I Like. London: Penguin, 1978.

BRISLIN, R.W.; TOMOKO, YOSHIDA. Improving Intercultural Interactions. Multicultural aspects of Counseling Series 3. STAGE Publications, 1994.

BRUNER, J.S. Towards a Theory of Instruction. Cambridge, Massachusetts, The Belknap Press of Harvard University Press, 1967.

BRUNER, J.S. The Process of Education. Cambridge, Massachusetts: Harvard University Press, 1963.

BUDD, M. Music and the Emotions - The Philosophical Theories. Routledge & Keagan Paul, 1985.

BURNETT, M.; LAWRENCE, I. Music Education Review. A Handbook for Music Teachers. Vol.2, NFER Publishing Company, 1979.

CAMPBELL, P.S.; SCHOTT-KASSNER, C. Music in Childhood: From Preschool Through the Elementary Grades. Schirmer Books, New York, 1995.

CHAMBERLIN, L.J. 'The Success Cycle.' The Creative Child and Adult Quarterly. Vol. IX, no.1, 1984.

CHERNOFF, J.M. African Rhythm and African Sensibility:Aesthetics and Social Action in African Musical Idioms. University of Chicago Press, 1979.

CHISELIN, B. 'The Creative Process and its Relation to the Identification of Creative Talent.' C.W. Taylor and F. Barron (eds.) Scientific Creativity, New York, 1963.

CHOATE, R.A. (ed.) Documentary Report of the Tanglewood Symposium. Music Educators National Conference, Reston Virginia,1968.

CHOKSY, L. The Kodaly Context:Creating an Environment for Musical learning. Prentice-Hall, Inc., Englewood Cliffs, New Jersey, 1981.

CHRISTIE, P. The Right to Learn. Ravan Press, 1985.

COLLINS,A.; BROWN, J.S.; NEWMAN, S.E. 'Cognitive Apprenticeship: Teaching the Crafts of Reading, Writing and Mathematics.' In Knowing, Learning and Instruction: Essays in Honor of Robert Glaser, ed. L. Resnick, Hillsdale, N.J.: Erlbaum, 1989.

COLWELL, R. Handbook of Research on Music Teaching and Learning. Music Educators National Conference, Shirmer Books, New York, 1992.

COPLAND, A. Music and Imagination. Harvard University Press, Cambridge, Massuchusetts London, England, 1979.

CSIKSZENTMIHALYI, M.; CSIKSZENTMIHALYI, I. Optimal Experience: Psychological Studies of flow in Consciousness. Cambridge University Press, 1988.

CSIKSZENTMIHALYI, M. 'Society, Culture and Person: A Systems View of Creativity.' In The Nature of Creativity: Contemporary Psychological Perspectives, Robert J. Sternberg, (ed.) New York: Cambridge University Press, 1988.

CUBISI, C.; WEDEKIND, V.; PARKER, B. Understanding Outcomes-Based Education Reader and Learning Guide: Knowledge, Curriculum and Assessment in South Africa. SAIDE, Pretoria, 1997.

DAVIDSON, L.; SCRIPP, L. 'Tracing Reflective Thinking in the Performance Ensemble.' The Quarterly Journal of Music Teaching and Learning, no.1 & 2, Spring, 1990.

DANIELS, A.; WAGNER, L. Music. Holt, Rinehart and Winston, U.S.A., 1975.

DANTO, A.C. 'The Artworld'. Journal of Philosophy, 1974.

DAWKINS, R. The Selfish Gene. Oxford University Press, 1976.

DEBORAH, A.R. 'Preschool Children's Use of Rhythm in Improvisation: Emerging Creative Thoughts.' Contributions to Music Education 17, Fall 1990.

DEPARTMENT OF EDUCATION. Discussion Document Curriculum 2005: Specific Outcomes, Assessment Criteria, Range Statements, Grades 1 to 9. Department of Education (South African), April 1997.

DENNETT, D.C. Consciousness Explained. Boston: Little Brown, 1991.

DEW, C. 'Introductory Analysis: Towards a Theory for Secondary School Music Teachers.' Music Education: Facing the Future, International Society for Music Education, 1990.

DEWEY, J. Art as Experience. New York: G.P. Putnam's Sons, 1934.

DEWEY, J. Democracy and Education. McMillan, 1960.

DICKIE, G. Art and the Aesthetic. Cornell University Press, 1974.

DOBBS, J.; FISKE,R.; LANE, M. Ears and Eyes (Teacher's Book), Oxford University Press, 1974.

DOMEK, R. 'Teaching Aural Skills to High School Students.' Music Educators Journal, Jan. 1979.

DRUMMOND, J. 'Community Music in a Multicultural Society.' The Talking Drum, (ed.) Elizabeth Oehrle, Netiem, South African Music Educator's Society Newsletter, no. 4, February 1995.

EATON, M.M. Aesthetics and the Good Life. Associated University Press, 1989.

EDUCATION INFORMATION CENTRE (E.I.C.) Understanding The National Qualifications Framework: A Guide to Lifelong Learning. Heinemann Educational Publishers, 1995.

EISNER, E.W. The Educational Imagination: On the Design and Evaluation of School Programs. New York: MacMillan, 1979.

ELLIOTT, D.J. Music Matters: Towards a New Philosophy of Music. Oxford University Press, 1995.

ELLIOTT, D.J. 'Music Education and the New South Africa.' Music Matters: Music Education in the 1990's. Proceedings of the Fourth National Music Educators' Conference 1991, Edited by James van Tonder, University of Cape Town, 1992.

ELLIOTT, D.J. 'Music Education as Aesthetic Education: A Critical Inquiry.' The Quarterly Journal of Music Teaching and Learning. Vol. II, no. 3, Fall 1991.

ELLIOTT, D.J. 'Key concepts in multicultural Music Education.' International Journal of Music Education, Vol. 13, 11-18, 1989.

ELLIOTT, D.J. 'Music as Culture: Toward a Multicultural concept of Arts Education.' Journal of Aesthetic Education, Vol. 25, no.1, Illinois University, 1990.

ELLIOTT, D.J. 'Music as Knowledge.' International Journal of Music Education, Vol. 25, no.3, 1991.

ELLIOTT, D.J. 'The Values of Music and Music Education.' International Society for Music Education Conference, 1994.

ERBES, R. 'Interactional Analysis.' Music Educators Journal, October 1978.

ERICKSON, E.K. Childhood and Society. New York: N.W. Norton, 1963.

FEINBERG, S. 'Creative Problem-Solving and the Music Listening Experience.' Music Educators Journal, September 1974.

FISKE, H.E. Music and Mind: Philosophical Essays on the Cognition and Meaning of Music. Lewiston, N.Y.: Edwin Mellen Press, 1990.

FLESCHER, I. 'Anxiety and Achievement of Intellectually Gifted and Creatively Gifted Children.' Journal of Psychology', Vol. 56, 1963.

FLEW, A. An Introduction to Western Philosophy. Thames & Hudson, London, 1971.

FLOHR, J.W. 'Young Children's Improvisations: Emerging Creative Thought.' The Creative Child and Adult Quarterly 10, no. 2, 1985.

FLOHR, J.W. 'Musical Improvisation Behaviour of Young Children.' (Ph.D. diss., University of Illinois at Urbana-Champain, 1979.) In John Kratus (ed.) 'Growing With Improvisation', Music Educators Journal, December 1991.

FREUD, S. 'Types of Neurotic Nosogenis.' (1912). In J. Rickman (ed.), A General Selection From the Works of Sigmund Freud, London: L.V. Woolf, 1937.

FREUD, S. The Interpretation of Dreams. Trans. A.A. Bril, London: Allan and Unwin, 1937.

FROMM, E. 'The Creative Attitude.' In H.H. Anderson Creativity and its Cultivation, New York, 1959.

FROMM, E. The Sane Society. New York: Holt, Rinehart and Winston, 1955.

FROMM, E. Man's Search for Himself. New York: Rinehart and Co., 1947.

FROMM, E. 'Creativity.' In Creativity and its Cultivation, H.H. Anderson (ed.), New York: Harper, 1959.

FUNG, C.V. 'Rationales for Teaching World Musics.' Music Educators Journal, Vol. 82, no.1, July 1995.

GAMBLE, T. 'Creative Music at Manland.' Vol.55, no.12 in The Music Teacher, Dec. 1976.

GARDNER, H. 'Simposium on the Theory of Multiple Intelligences.' In Thinking; The Second International Conference, edited by D.N. Perkins, Jack Lockhead and John Bishop. Hillsdale, N.J.:Erlbaum, 1987.

GARDNER, H. The Unschooled Mind. New York: Basic Books, 1991.

GETZELS, J.W.; JACKSON, P.W. Creativity and Intelligence. New York: John Wiley and Sons, 1962.

GILCHRIST, M. The Psychology of Creativity. Melbourne University Press, 1972.

GLOVER, J.; WARD,S. Teaching Music in the Primary School. Cassell, London, 1993.

GREENACRE, P. 'The Childhood of the Artist.' Psychoanalytic Study of the Child 12, New York: International Universities.

GROUT, D.J. A History of Western Music. Third Edition J.M. Dent & Sons LTD London, 1980.

GUILFORD, J.P. 'Traits of Creativity.' In Creativity and its Cultivation, ed. H.H. Anderson, New York: Harper and Brothers, 1959.

GUILFORD, J.P. Way Beyond the I.Q. Buffalo New York: The Creative Educational Foundation, 1977.

GUILFORD, J.P. 'Three Faces of Intellect.' American Psychologist 14, 1959.

GUILFORD, J.P.; HOEPFNER, R. The Analysis of Intelligence. New York: McGraw-Hill, 1971.

GUILFORD, J.P. The Nature of Human Intelligence. New York: McGraw-Hill Book Company, 1967.

HAMANN, D.L. 'Creativity in the Music Classroom.' Music Educators National Conference, 1991.

HANFLING, O. Philosophical Aesthetics: An Introduction. The Open University, 1992.

HANSLICK, E. The Beautiful in Music. Da Capo Press, New York, 1974.

HASAN, P.; BUTCHER, H. 'Creativity and Intelligence.' British Journal of Educational Psychology. Vol. 57, 1966.

HIRST, P.H. Educational Theory and its Foundational Disciplines. Routledge & Kegan Paul, london, 1983.

HOWARD, V.A. Artistry: The Work of Artists. Indianapolis: Hackett Publishing, 1982.

ISAACS, A.F. 'Sameul H. Adler, Famed Composer with Charismatic Charm.' The Creative Child and Adult Quarterly, Vol. IX, no. 2, 1984.

JACKSON, P.W.; MESSICK, S. 'The Person, the Product and the Response: Conceptual Problems in The Assessment of Creativity.' Journal of Personality 33, 1965.

JONES, C. Making Music. Musical Instruments of Zimbabwe, Harare, Zimbabwe, 1992.

JORGENSON, E.R. Philosopher, Teacher, Musician. Perspectives on Music Education, Illini Books, 1993.

JUNG, C.G. Alchemical Studies. Routledge & Kegan Paul, london, 1967.

JUNG, C.G. The Collected Works of C.G. Jung. The Archetypes and the Collective Unconscious (2nd ed.) Routledge & Kegan Paul, London, 1959.

JUNG, C.G. 'On the Relation of Analytical Psychology to Poetry.' In The Spirit in Man, Art and Literature. trans. by R.F.C. Hull, Routledge & Kegan Paul, London, 1966.

KABALEVSKI, D. 'On Restructuring - With Optimism but Without Embellishment.' Soviet Education Year, Vol. 30, Part 1, January, 1988.

KANT, I. Critique of Judgement (1790); new trans. by J.C. Meredith, London: Oxford University Press, 1973.

KAPLAN, M. Foundations and Frontiers of Music Education. Holt, Rinehart & Winston Inc, U.S.A., 1966.

KIRBY, D.; KUYKENDALL, C. Mind Matters: Teaching for Thinking. Boynton/Cook Publishers Heinemann, 1991.

KIVY, P. 'Music and the Liberal Education.' Journal Of Aesthetic Education. 25, no.3, Fall, 1991.

KNELLER, G.F. The Art and Science of Creativity. New York: Holt, Reinhart & Winston, 1965.

KOBERG, D.; BAGNALL, J. The Universal Traveller. Los Altos, C.A.: William Kaufmann, Inc., 1972.

KOESTLER, A. Insight and Outlook. New York: MacMillan, 1949.

KOESTLER, A. The Act Of Creation. New York: MacMillan, 1964.

KOGAN, N. 'Creativity Tests and Achievement in High School Science.' Journal of Applied Psychology, Vol.47, 1963.

KOIZUMI, K. 'Creative Music Education in Japan During 1920's: The Case of the Elementary School attached to Nara Women's Higher Teachers College.' British Journal of Music Education, Vol. 11, No. 2, July 1994.

KRATUS, J.K. Rhythm, Melody, Motive, and Phrase Characteristics of Original Songs By Children Aged Five To Thirteen. Ph.D. diss., North Western University, 1985.

KRATUS, J.K. 'A Time Analysis Of The Compositional Processes Used By Children Ages 7 - 11.' Music Educators National Conference (U.S.), Vol. 37, Part 1, Spring 1989.

KRATUS, J.K. 'Structuring the Music Curriculum for Creative Learning.' Music Educators Journal, May 1990.

KRATUS, J.K. 'Growing With Improvisation.' Music Educators Journal, December 1991.

KRIS, E. 'On Preconscious Mental Processes.' Psychoanalytic Exploration in Art, New York: Schocken by arrangement with International University Press, 1964.

KRIS, E. 'Psychoanalysis and the Study of Creative Imagination.' Bulletin of the New York Academy of Medicines. 29, 1952.

KUBIE, L.S. Neurotic Distortion of the Creative Process. Lawrence: University of Kansas Press, 1958.

KUBIE, L.S. 'Blocks in Creativity.' In Explorations in Creativity (pp 33-43), R. Mooney and R. Razik, (eds.) New York: Harper and Row, 1967.

LANGER, S.K. Problems of Art. Routledge & Kegan Paul, London, 1957.

LANGER, S.K. Feeling and Form. New York: Charles Scribner's Sons, 1953.

LEONHARD, C.; HOUSE, R.W. Foundations and Principles of Music Education. Mcgraw-Hill Book Company, 1959.

LOMAX, A. 'Appeal for Cultural Equity.' African Music Journal of the African Music Society, 6, no.1, 1980.

LYTTON, H. Creativity and Education. Routledge & Kegan Paul, London, 1971.

MACKINNON, D.W. In Search of Human Effectiveness: Identifying and Developing Creativity. Buffalo, New York: Creative Educational Foundation, 1978.

MACINTYRE, A. After Virtue. 2nd. ed. Notre Dame, Ind.: University of Notre Dame Press, 1984.

MANN, J.S. 'Curriculum Criticism.' Curriculum Theory Network 2, Winter, 1968-69: 2-14.

MARGETSON, D. 'Understanding Problem-based learning.' Educational Philosophy and Theory, Vol. 25, no.1, 1993.

MARGOLIS, J. 'Music as Ordered Sound: Some Complications Affecting Description and Interpretation.' In The Interpretation of Music: Philosophical Essays, ed. Michael Krausy. Oxford: Claredon Press, 1993.

MARK, M.L. Source Readings in Music Education History. Schirmer Books, 1982.

MARK, M.L. Contemporary Music Education. Schirmer Books, New York, 1978.

MASLOW, A. Further Reaches of Human Nature. New York: Viking Press, 1972.

MASLOW, A. 'Music, Education and Peak Experiences.' In (ed.) Robert Choate, Documentary Report of the Tanglewood Symposium, 1968.

MAY, R. Psychology and the Human Dilemma. New York, Norton, 1979.

MAYESKY, M.; NEWMAN, D.; WLODKOWSKI, R. Creative Activities for Young Children. (3rd edition), Delmar Publishers Inc., 1985.

McCLARY, S. 'The Blasphemy of Talking Politics During Bach Year.' In Music and Society:The Politics of Composition, Performance and Reception. Edited by Richard Leppert and Susan McClary. Cambridge University Press, 1987.

McCORMICK, P.J. Modernity, Aesthetics and the Bounds of Art. Cornell University Press, 1990.

McLUHAN, M.; POWERS, B.R. The Global Village: Transformations in World Life and Media in the 21st Century. New York: Oxford University Press, 1989.

MERRIAM, A. The Anthropology of Music. Evanston I.L.: Northwestern University Press, 1964.

MEYER, L.B. Emotion and Meaning in Music. Chicago: University of Chicago Press, 1956.

MEYER, L.B. Style and Music: Theory, History and Ideology. Philadelphia: University of Pennsylvania Press, 1989.

MICROSOFT CORPORATION. 'Aesthetics.' Microsoft (R) ENCARTA, Copyright (C), 1994.

MOOG, H. The Musical Experience of the Pre-school Child. London: Schott, 1976.

MOORHEAD, G.; POND, D. 'Music for Young Children.' (Santa Barbara; C.A.: Pillsbury Foundation for the Advancement of the Arts, 1978, originally published 1941-51.) In John Kratus, 'Growing With Improvisation', Music Educators Journal, December 1991.

MURPHY, G. Human Potentialities. New York: Basic Book, 1958.

NOLLER, R.B.; PARNES, S.J.; BIONDI, A.M. Creative Actionbook. New York: Scribner's, 1976.

OEHRLE, E.D. A Case for Creativity in Elementary Music Education. Thesis submitted in partial fulfilment of the Ph.D.-degree, University of Natal, Durban, 1983.

OEHRLE, E.D. 'The Creative Approach to Music Education in the South African Context.' South African Society of Music Teachers, NO. 116, June, 1990.

OEHRLE, E.D. A New Direction for South African Music Education. Shuter & Shooter, Pietermaritzburg, 1987.

OEHRLE, E.D. 'A South African Perspective.' In Music Education: International Viewpoints, (ed.) Martin Coute, Martin Coute, 1994.

ORNSTEIN, A.C.; LEVINE, D.U. An Introduction to the Foundations of Education. (3rd Edition). Mifflin Company, 1985.

OSBORN, A.F. Applied Imagination. New York: Scribner's, 1953.

PARNES, S.J. Creative Behaviour Guidebook. New York: Scribner's, 1967.

PAULHAN, F. The Laws of Feeling. Trans. C.K. Ogden, New York: Harcourt, Brace & Co., 1930.

PAYNE, M.A. Creative Education. William MacLellan, 1958.

PAYNTER, J.; ASTON, P. Sound and Silence. Cambridge University Press, 1970.

PERKINS, D.N. The Mind's Best Work. Cambridge Mass: Harvard University Press, 1981.

PERKINS, D.N. 'Creativity and the Quest for Mechanism.' In The Psychology of Human Thought. edited by Robert J. Sternberg and Edward E. Smith, New York: Cambridge University Press, 1988.

PERKINS, D.N. 'Art as Understanding', Journal of Aesthetic Education 22, no.1, Spring, 1988.

PETERS, R.S. 'Education as Initiation.' In Margetson, D. 'Understanding Problem-based Learning.' Educational Philosophy and Theory, Vol. 25, no. 1, 1993.

PHILIPSON, M. Outline of a Jungian Aesthetics. Evanston: Ell. North Western University Press, 1963.

PIAGET, J.; INHELDER, B. Psychology of the Child. Translated by Helen Weaver, London:Routledge and Kegan Paul, 1969.

PIAGET, J.; INHELDER, B. The Growth of Logical Thinking: From Childhood to Adolescence. Translated by Anne Parsons and Stanley Milgram, New York: Basic Book, 1958.

PIAGET, J. The Science of Education and the Psychology of the Child. Translated by Derek Coltman New York: Penguin Books, 1977.

PIAGET, J. To Understand is to Invent: The Future of Education. Translated by G.A. Roberts. New York: Penguin Books, 1976.

POPPER, K.R. Conjectures and Refutations. Routledge and Kegan Paul, London, 1963.

QUINE, W.V. 'Necessary Truth.' In The Ways of Paradox and Other Essays, Random House, New York, 1966.

QUINN, T.; HANKS, C. Coming to our Senses: The Significance of the Arts for American Education. New York: McGraw-Hill Co., 1977.

REGELSKI, T.A. 'Action Learning versus the Pied Piper Approach.' Music Educators Journal, Feb. 1983.

REGELSKI, T.A. 'A Sound Approach to Sound Composition.' Music Educators Journal, May 1986.

REGELSKI, T.A. 'Action Learning: The Practical Approach for Music Education.' Music Educators Journal, February 1983.

REIMER, B. 'The "Why" of Music Education.' Music Education: Why?, What?, How? Proceedings of the National Music Educators' Conference: Pretoria, a Human Sciences Research Council publication, edited by Sarita Hauptfleisch, Pretoria, 1991.

REIMER, B. A Philosophy of Music Education. Prentice-Hall, Inc. Englewood Cliffs, New Jersey, 1970.

REINHARDT, D.A. 'Preschool Children's Use of Rhythm in Improvisation.' Contributions to Music Education, 17 (Fall 1990) pp. 7-19.

RIDER, M. 'The Importance of Music and the Arts to the Higher Education Curriculum of the Future.' In Jack P.B. Dobbs (ed.) Music Education: Facing the Future. International Society for Music Education, University of Canterbury, 1990.

RIPPLE, R.E.; MAY, F.B. 'Caution in Comparing Creativity and I.Q.'. Psychological Reports, Vol. 10 1962.

ROMMELAERE, P. 'Thoughts on the Feasibility of Multicultural Education.' South African Society of Music Teachers, no. 115, December 1989.

ROSS, M. The Arts: A Way of Knowing. Oxford: Pergamon, 1983.

ROSS, S. 'Epistemology, Intentional Action and Physical Education.' Philosophy of Sport and Physical Activity, (ed.) P.J. Galasso, Toronto: Canadian Scholars' Press, 1988.

ROSSMAN, J. Industrial Creativity: The Psychology of the Inventor. New York, University Books, 1964.

SARRAZIN, N. 'Exploring Aesthetics, Focus on Native Americans.' Music Educators Journal, January, 1995.

SCHACHTEL, E.G. Metamorphosis. New York: Basic Book, 1959.

SCHAFER, M.R. The Rhinoceros in the Classroom. London: Universal, 1975.

SCHAFER, M.R. Creative Music Education. Schirmer Books, 1976.

SCHEFFLER, I. 'In Praise of Cognitive Emotions.' Teachers College Record 79, no.2, 1977.

SCHEFFLER, I. 'In Praise of Cognitive Emotions.' Teachers College Record, 79, no.2, 1977.

SCHEFFLER, I. 'Making and Understanding.' In Proceedings of the Forty-third Annual Meeting of the Philosophy of Educating Society. Edited by B. Arnstine and D. Arnstine. Normal: Illinois State, University Press, 1988.

SCHöN, D.A. Educating the Reflective Practitioner: Toward a New Design for Teaching and Learning in the Professions. San Francisco: Jossey-Bass, 1987.

SERAFINE, M.L. Music as Cognition:The Development of Thought in Sound. New York: Columbia University Press, 1988.

SESSIONS, R. 'Questions about Music.' In John Kratus (ed.) 'A Time Analysis of the Compositional Processes used by Children Ages 7-11.' Journal of Research in Music Education, Vol. 37, no. 1, London, 1988.

SHERMAN, R.W. 'Creativity and the Condition of Knowing.' Music Educators Journal, October 1971.

SHERMAN, R.W. 'Creativity and the Condition of Knowing.' Music Educators Journal, Part 2, November 1971.

SHERMAN, R.W. 'Creativity and the Condition of Knowing.' Music Educators Journal, Part 3, December 1971.

SMALL, C. Music - Society - Education. Schirmer Books, New York, 1977.

SPADY, W.G. 'Lecture Address on Outcomes-based Education.' Nuwe Hoop Sentrum, Worcester, 4th November, 1997.

SPARSOTT, F.E. The Theory of the Arts. Princeton, N.J.: Princeton University Press, 1982.

SPARSHOTT, F.E. 'Aesthetics of Music: Limits and Grounds.' In What is Music? An Introduction to the Philosophy of Music. Edited by Philip A. Alperson. New York: Haven publications, 1987.

SPECHT, R.; CRAIG, G.J. Human Development: A Social Perspective.(2nd Edition) Prentice Hall, Englewood Cliffs, New Jersey, 1987.

SPENCER, H. Education: Intellectual, Moral and Physical. London: Williams and Norgate, 1891.

SPRADLEY, J.P.; McCURDY, D.W. Anthropology: The Cultural Perspective. John Wiley & Sons Inc., New York, U.S.A., 1975.

STEIN, M.I. Stimulating Creativity. Vol. 1, New York Academic Press, 1975.

STEPHENS, J. 'Metamorphosis: Creative and Integrated Teaching methods in European Music Education.' British Journal of Music Education, Vol. 11, no.3, November 1994.

STORR, A. Music and the Mind. Harper Collins, London 1993.

STRONG, J.S. The Experience of Buddhism. Belmont, Calis, Wadsworth, 1995.

SWANGER, D. 'Ideology and Aesthetic Education.' Journal of Aesthetic Education 15, no.2, April 1982.

SWANSON, B. Music in the Education of Children. Belmont, Calif: Wadsworth, 1969.

SWANWICK, K. A Basis for Music Education. NFER Publications, 1979.

SWANWICK, K. Music, Mind and Education. Routledge, London, 1988.

TAKIZAWA, T. 'The Curriculum of Music Education from the Viewpoint of Asia - A treatment of Western Music and traditional Music.' In Music Education: Facing the Future, P.B. Dobbs (ed.), Helsinki Finland, 1990.

TAYLOR, C. Multiculturalism and 'The Politics of Recognition'. Princeton, N.J.: Princeton University Press, 1992.

THACKRAY, R.M. Creative Music in Education. Novelle & Company, LTD. London, 1965.

THOMS, H. 'Encouraging the Musical Imagination through Composition.' Music Educators Journal, January 1987.

THOMPSON, J.L. Sociology Made Simple. Made Simple Books, Heinemann: London, 1982.

TITON, J.T.; KOETTING, T.; Mc ALLESTER, D.P.; RECK, D.B.; SLOBIN, M. Worlds of Music. New York: Schirmer Books, 1984.

TODD, V.E.; HEFFERNAN, H. Years Before School :Guiding Preschool Children, 3rd Ed. New York: Macmillan, 1977.

TORRANCE, E.P. 'Can We Teach Children to Think Creatively ?' The Journal of Creative Behaviour 6, no.2, 1972.

VERNON, P.E. Mathematical Creation ; Creativity. Harmondsworth, 1970.

WADSWORTH, B. Piaget's Theory of Cognitive Development. 2nd Edition, New York: Longman, 1979.

WAGNER, P.A. 'Will Education Contain Fewer Surprises for Students in the Future?' In Varieties of Thinking, ed. V.A. Howard, New York: Routledge, 1990.

WALKER, J.; EVERS, C. 'Towards a Materialist Pragmatist Philosophy of Education.' Education Research and Perspectives II, 1, 1984.

WALKER, R. 'Music Education Freed from Colonialism: A New Praxis.' International Journal of Music Education, no. 27, May 1996.

WALLAS, G. The Art of Thought. London, CAPE, 1926.

WALLACH, M.A.; KOGAN, N. 'Creativity Tests and Achievement in High School Science.' Journal of Applied Psychology, Vol. 47, 1963.

WEBSTER, P.R. 'Creativity as Creative Thinking.' Music Educators Journal, Vol.76, no.9, May 1990.

WEBSTER, P.R. 'Relationship Between Creative Behaviour in Music and Selected Variables as Measured in High School Students.' Journal of Research in Music Education, Winter, Vol. 27, Part 4, 1979.

WEISSMAN, P. 'Theoretical Considerations of Ego Regression and Ego Functions in Creativity.' Psychoanalytic Quarterly, Vol.36, 1967.

WERTHEIMER, M. Productive Thinking. New York: Harper, 1945.

WHITEMAN, M. 'Opvoeding of Opleiding? Kruisstrominge in Musiekonderwys Vandag.' South African Society of Music Teachers, no. 116, June 1990.

WOLTERSTORFF, N. 'The Work of Making a Work of Music.' In What is Music? An Introduction to the Philosophy of Music. Edited by Philip A. Alperson, New York: Haven Publications, 1987.

WOODMAN, R.W. 'Creativity as a Construct in Personality Theory.' In The Journal of Creative Behaviour 15, no.1, 1981.

YOUNG, S. 'Movement in a Musical Education.' British Journal of Music Education, Cassell, London, 1993.