HOWARD GARDNER’S MULTIPLE INTELLIGENCES THEORY, OUTCOMES-BASED EDUCATION AND CURRICULUM IMPLEMENTATION IN SOUTH AFRICA: A CRITIQUE OF MUSIC EDUCATION IN THE GENERAL EDUCATION AND TRAINING PHASE

By

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Submitted in partial fulfillment of the requirements for the degree of Magister Musicae in Music Education in the Faculty of Arts at the Nelson Mandela Metropolitan University

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DECLARATION:

In accordance with Rule G4.6.3, I hereby declare that the above-mentioned treatise is my own work and that it has not previously been submitted for assessment to another University or for another qualification.

SIGNATURE: __________________________________________________

DATE: ________________________________________________________
ACKNOWLEDGEMENTS

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This study examines the current curriculum for primary schools in South Africa – Curriculum 2005 (C2005) and the subsequent Revised National Curriculum Statement (RNCS), with Outcomes-Based Education (OBE) as its fundamental educational approach - with specific reference to the place of music education in it. While the underlying principles and scope of this curriculum has many positive attributes, numerous studies have shown that there are still major stumbling blocks in the way of its successful implementation. Since the emphasis of the Arts and Culture Learning Area is on the nurturing of generic values and attitudes towards culture, it does not provide for sufficient development of subject-specific musical skills and knowledge. Instead this vital form of musical learning continues to be provided in the form of extra-curricular music programmes by those few schools who have the staff expertise and the funding to do so. Music therefore remains accessible only to the privileged few.

Although C2005 encourages and requires significant levels of integration in Learning Outcomes and Assessment Standards within and across Learning Areas, this is currently one of the least successful aspects of its implementation. This lack of success, it is argued, is in part the result of severe limitations in the training of teachers and the availability of necessary resources in schools, and in part the result of the curriculum’s own limited interpretation of integration. Psychologist Dr Howard Gardner’s Theory of Multiple Intelligences is a holistic approach to education that stresses, amongst other things, that Musical Intelligence is one of eight vital forms of intelligence that should be accessible to all children. It is argued that educational approaches based on Gardner’s Multiple Intelligences Theory provide some insights into the integration of Musical Intelligence with other forms of learning that may usefully be applied in C2005.
KEY WORDS

C2005 – Curriculum 2005

RNCS – Revised National Curriculum Statement

OBE – Outcomes-Based Education

GET Band – General Education and Training Band

Arts and Culture Learning Area

Music Education

Howard Gardner

MI Theory – Multiple Intelligences Theory
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CHAPTER 1
INTRODUCTION TO THIS STUDY

1.1 AIM: SUMMARY OF RESEARCH

The aim of this study is to examine the current curriculum for primary schools in South Africa, with specific reference to the place of music education in it. While the underlying principles and scope of this curriculum have many positive attributes, numerous studies have shown that there are still major stumbling blocks in the way of its successful implementation. Music remains accessible only to the privileged few. Howard Gardner’s Theory of Multiple Intelligences is a holistic approach to education that stresses, amongst other things, that Musical Intelligence is one of eight vital forms of intelligence that should be accessible to all children. A significant goal of Outcomes-Based Education, the official education philosophy of the current curriculum in South Africa, is integration. This study will argue that MI Theory can support the goal of integration. It will also reiterate the vital importance of music education, and why the DoE should be encouraged to make it possible for all schools to place far greater emphasis on this aspect of learning than is currently the case.

1.2 CONTEXT AND RATIONALE: LITERATURE STUDY

I am a Bachelor of Music graduate currently employed in a primary school (the GET Band) to teach both the compulsory Arts and Culture Learning Area to all learners in the grades that I have been assigned, as well as to teach extra-curricular subject music (instrumental music, music theory and instruction in the band programme) to a select number of pupils who opt (and pay) for additional specialized instruction in music. Since I started teaching, I have noticed major
problems with the actual implementation of the Outcomes-Based Education (OBE) system, the official educational philosophy of the South African Department of Education (DoE) underlying Curriculum 2005 (C2005).

According to Dr. Helen van der Horst and Professor Ria McDonald, in their book “Outcomes-Based Education – Theory and Practice”, Outcomes-Based Education focusses on two aspects, namely, on the “desired end results of each learning process”, and on the “instructive and learning processes that guide the learners to these end results”. Thus OBE is centered around learners and is oriented around achieving results (Van der Horst & McDonald 2008:5).

OBE has four specific ideas:

- To allow learners to reach their full abilities and potentials
- To build the self-esteem of learners, which will, in turn, result in better results and marks
- To create a positive learning environment wherein which learners can be motivated to achieve the desired results
- To create an environment wherein all stakeholders share in the onus for learning (Van der Horst & McDonald 2008:6).

Assessment in OBE is based on “whether or not they [the learners] are able to demonstrate an outcome. To do this, assessment must be criterion-based. This means that learners are assessed against criteria that indicate if an outcome has been attained. Criterion-based assessment is different to the old form of assessment in which learners were tested against other learners’ performance or against the customary norm. The new curriculum encourages teachers to assess the learners continuously. This doesn’t mean lots of tests but rather that you use many different methods of assessment and evaluation to monitor your learners’ progress throughout the year and give each learner more than one opportunity to demonstrate the ability to retain an outcome” (http://www.mml.co.za/docs/OBE_manual.pdf).
In the GET Band of schooling, there are three phases, namely the Foundation Phase (Grade R – Grade 3), the Intermediate Phase (Grade 4 – Grade 6) and the Senior Phase (Grade 7). Subject music is not a part of the compulsory GET curriculum. It remains an optional extra for governing bodies, schools and pupils who have both the means and the desire to implement it. The Foundation Phase is divided into three learning areas, Literacy, Numeracy and Life Skills (Van der Horst & McDonald 2008:51-58). Arts and Culture is integrated into the learning outcomes in this phase. Arts and Culture becomes an independent Learning Area thereafter, where it is currently one of six compulsory Learning Areas in the Intermediate Phase\(^1\), and one of seven compulsory Learning Areas in the Senior Phase.

The underlying principles upon which C2005 is based include:

- Social Justice, a Healthy Environment, Human Rights and Inclusivity
- A High Level of Skills and Knowledge for All
- Clarity and Accessibility
- Progression and Integration. Integration is important to OBE because it links and connects various Learning Areas. It does this to “expand their opportunities to attain skills, acquire knowledge and develop attitudes and values encompassed across the curriculum” (Van der Horst & McDonald 2008:19). The question of integration will be discussed in greater detail in the concluding chapter of this treatise.

In principle I believe the theory of OBE is a good one, but if we look at what is currently happening in our schools, it is clear that the reality thereof is not working. Numerous studies have been conducted to follow up on the state of curriculum implementation in South African schools in the last few years. These studies focus on both the content of the curriculum itself, as well as on the

\(^1\) Although this may well change in due course, see chapter 4 of this treatise for reference to recent proposed amendments (DoE 2009) to the RNCS (Revised National Curriculum Statement) in the Intermediate Phase.
infrastructure and resources required for successful implementation. Dr Irmhild Horn, for example, believes that too much time is spent on the “shaping of social attitudes and values” rather than on “mastering specific subject content”. She argues that although it is important to teach children morals and values, this should not happen at the expense of academic work (Horn 2008). Outcomes-Based Education was also attempted in the United States of America and Australia, but failed miserably to reach its intended academic goals in those countries. Studies that have followed up on the state of music education since the implementation of C2005 have shown that in most schools from previously disadvantages areas the Arts and Culture Learning Area is a dismal failure. This is largely due to the lack of resources and properly trained staff (Alley 2007). These are the same schools that do not have the means to implement extra-curricular subject music programmes. Despite the merits of C2005, therefore, music is still only being offered to the privileged few. Most South African children are still being denied access to music education.

Psychologist Dr Howard Gardner’s Multiple Intelligences Theory (MI Theory) stresses the importance of eight forms of intelligence. This holistic approach to education is based on the belief that if any of these forms of intelligence are slighted, it will have a detrimental effect on the development of the remaining seven. Gardner introduced the idea into American society during the 1980’s. He puts forward eight different areas in which human beings show intelligence, namely:

- Linguistic intelligence
- Logical-Mathematic intelligence
- Spatial intelligence
- Bodily-kinesthetic intelligence
- Musical intelligence
- Interpersonal intelligence
- Intrapersonal intelligence
- Naturalistic Intelligence.
According to this theory, therefore, music is not an unessential “nice to have”, but a vital part of the intellectual and personal development of each and every human being. Gardner maintains that too often in education systems throughout the West, the main focus is on mathematics and languages. If learners do not achieve well in these subjects, then they are considered to be a failure. In his opinion, educators should place equal emphasis on all forms of intelligence. Armstrong therefore summarises the MI Theory approach to education as follows:

Dr. Gardner says that we should also place equal attention on individuals who show gifts in other intelligences: the artists, architects, musicians, naturalists, designers, dancers, therapists, entrepreneurs, and others who enrich the world in which we live. Unfortunately, many children who have these gifts don’t receive much reinforcement for them in school. Many of these kids, in fact, end up being labeled “learning disabled”, “ADD (attention deficit disorder)” or simply underachievers, when their unique ways of thinking and learning aren’t addressed by a heavily linguistic or logical-mathematical classroom. The theory of multiple intelligences proposes a major transformation in the way our schools are run. It suggests that teachers be trained to present their lessons in a wide variety of ways using music, cooperative learning, art activities, role play, field trips, inner reflection, and much more (Armstrong 1996)

MI Theory has been implemented into schools; both correctly and incorrectly, and there are many arguments for and against this theory. However, in my opinion, there are many aspects of this theory that can be used in collaboration with OBE to address the problems currently encountered with C2005 implementation in South African schools.

1.3 CENTRAL THEORETICAL ARGUMENT

This study cites Gardner’s MI Theory in support of the vital significance of music education for the proper intellectual and personal development of all South
African children, and seeks to expose the manner in which MI Theory can address the problems currently encountered with C2005 implementation in the GET Phase, particularly as regards the principle of integration in the case of Musical Intelligence.

1.4 RESEARCH DESIGN: THEORETICAL UNDERPINNING, OBJECTIVES AND METHODS

Theoretically this study is qualitatively underpinned. It is based on a hermeneutic critique of written sources, but also informed by my own phenomenological encounters in the field as musician and educator.

The objectives of this treatise are:

- To set out the nature and principles of C2005 in the GET Band in South Africa today
- To set out the nature and principles of Howard Gardner's Multiple Intelligences Theory
- To engage with studies that expose the state of curriculum implementation in the GET Band in South Africa today, with particular reference to music
- To answer the extent to which Gardner’s MI Theory may provide answers to the problems encountered with curriculum implementation in the GET Band, with particular reference to the principle of integration and to music.

The research method employed in this treatise is a critique of written sources.

1.5 DELIMITATIONS OF THIS STUDY

As an explanatory theoretical hypothesis, this study does not seek to gain empirical evidence in support of its theoretical argument. Also, it does not deny
the possibility that there may be other ways of looking at the problems currently encountered with C2005 implementation in general, and at music education in particular, in South Africa today.

1.6 CHAPTER OUTLAY

In the forthcoming chapter I provide an explanation of Outcomes-Based Education in South Africa, particularly as it is encountered in the amended version of C2005 as found in the Revised National Curriculum Statement (RNCS; DoE 2002). I describe the principles and theoretical beliefs on which it is based, and pay particular attention to the details of the curriculum for the Arts and Culture Learning Area. I conclude this chapter with a review of the strengths and the weaknesses in this educational approach. Chapter 3 provides a similar approach to my review of Gardner’s Multiple Intelligences Theory and an educational approach based on this theory. In the fourth and final chapter of this treatise I conclude by examining the ways in which MI Theory can address the problems currently encountered with the implementation of C2005 in the GET Band in South Africa. My focus here is on the extent of integration in this curriculum, and on the state and the extent of music education in particular. I reiterate the vital importance of music education, and why the DoE should be encouraged to make it possible for all schools to place far greater emphasis on this aspect of learning than is currently the case.
CHAPTER 2
OUTCOMES-BASED EDUCATION IN THEORY AND
PRACTICE

2.1 A BRIEF HISTORY OF THE IMPLEMENTATION OF
OUTCOMES-BASED EDUCATION IN SOUTH AFRICA

According to The Department of Education’s “Policy – Revised National
Curriculum Statement Grades R-9 (Schools): Overview” (DoE 2002a:4), after the
first free elections of 1994 South Africa’s new government was left with a
segregated and imbalanced education organization. During the apartheid years,
our country had nineteen different learning systems, distinguishable on the basis
of ethnicity, location and educational philosophy. These different education
systems and the unequal quality of education they provided were directly related
to the positions their respective learners were expected to fulfil in society as
adults. South Africa’s education system was modified directly after our first
democratic elections in 1994. The National Education and Training Forum began
changing and reworking the curriculum and also the subjects that were being
offered (DoE 2002b:4).

The “Lifelong Learning through a National Curriculum Framework” document of
1996 was the first key curriculum declaration of the new South Africa. It was
based on the theories and standards developed from the White Paper on
Education and Training in 1995, the South African Qualifications Act (Number 58
of 1995) and the National Education Policy Act (Number 27 of 1996). The White
Paper stressed that important changes needed to be made in order to stabilize
and regulate teaching in South Africa. The paper also put emphasis on the fact
that a move from the established “aims-and-objectives” method to that of
outcomes-based education had to be made. It envisioned:
A prosperous, truly united, democratic and internationally competitive country with literate, creative and critical citizens leading productive, self-fulfilled lives in a country free of violence, discrimination and prejudice (DoE 2002b:4).

The National Education Policy Act (number 27 of 1996) made the following devices available for the advancement of the subsequent curriculum and syllabus design for an outcomes-based approach:

- Critical Cross-Field outcomes
- Specific outcomes
- Range Assessments
- Assessments Criteria
- Performance Indicators
- Notional Time and Flexi Time
- Continuous Assessment, Recording and Reporting (DoE 2002b:4-5).

The following aspects were subsequently added to the planning phase:

- Phase Organisers
- Programme Organisers
- Expected Levels of Performance
- Learning Programmes (DoE 2002b:5).

The Constitution of the Republic of South Africa (Act No 108 of 1996) gives us the foundation for curriculum change and development in modern-day South Africa. The foreword to the Constitution asserts that the goals of the Constitution are to:

- Heal the divisions of the past and establish a society based on democratic values, social justice and fundamental human rights
- Improve the quality of life of all citizens and free the potential of each person
- Lay the foundations for a democratic and open society in which Government is based on the will of the people and every citizen is equally protected by law
• Build a united and democratic South Africa able to take its rightful place as a sovereign state in the family of nations (DoE 2002b:7).

Furthermore, the Manifesto names 16 strategies for making young South Africans familiar with the morals and ideals of the Constitution. These strategies manifest themselves in the Revised National Curriculum Statement (RNCS) as:

• Nurturing a culture of communication and participation in school
• Role-modelling: promoting commitment as well as competence amongst educators
• Ensuring that every South African is able to read, write, count and think
• Infusing the classroom with a culture of human rights
• Making Arts and Culture part of the curriculum
• Putting history back into the curriculum
• Learning about the rich diversity of cultures, beliefs and world views within which the unity of South Africa is manifested
• Making multilingualism happen
• Ensuring equal access to education
• Promoting anti-racism in schools
• Freeing the potential of girls as well as boys
• Dealing with HIV / AIDS and nurturing a culture of sexual and social responsibility
• Making schools safe to learn and teach in and ensuring the rule of law
• Promoting ethics and the environment
• Nurturing the new patriotism, or affirming a common citizenship (DoE 2002b:7-8).

In 1997, the “Statement of the National Curriculum for Grades R-9” was made public in the Government Notice 1445. Curriculum 2005 (C2005) was initiated in schools as from 1998, and its execution was assessed by a Ministerial Committee in 2000. The areas that the Committee examined were the "structure and design of the curriculum, teacher orientation, training and development,
learning support materials, provincial support to educators in schools and implementation time-frames” (DoE 2002b: 5). The Committee gave its report-back on 31 May 2000, recommending that improvement of the syllabi required “streamlining its design features and simplifying its language through the production of an amended National Curriculum Statement. It further recommended that this Revised National Curriculum Statement should reduce the curriculum design features from eight to three: critical and developmental outcomes, learning outcomes, and assessment standards. It should also align curriculum and assessment. In addition, it recommended that implementation needed to be strengthened by improving educator orientation and training, learning support materials and provincial support. It also recommended the relaxation of time-frames for implementation” (DoE 2002b:5).

The Council of Education Ministers approved the national curriculum suggestions and propositions of the Review Committee in June 2000. In July 2000, the Committee came to the decision that:

The development of a National Curriculum Statement, which must deal in clear and simple language with what the curriculum requirements are at various levels and phases, must begin immediately. Such a Statement must also address the concerns around curriculum overload and must give a clear description of the kind of learner in terms of knowledge, skills, value and attitudes – that is expected at the end of the General Education and Training band (DoE 2002b: 6).

The modification of Curriculum 2005’s outcome was that of a “Draft Revised National Curriculum Statement for Grades R – 9 (Schools)”. This Draft Revised National Curriculum Statement for Grades R – 9 (Schools) became accessible for public criticism and analysis on 30 July 2000. It was then revised, this time taking into consideration the comments of the public. The Revised National Curriculum Statement (RNCS) wasn’t a new syllabus, but it was an updated and restructured Curriculum 2005. It has remained the official educational policy document for the General Education and Training Band (the GET Band) in all South African government schools ever since.
The RNCS has the following as its aims:

- The integration of education and training
- The promotion of lifelong learning for all South Africans
- An outcomes-based rather than a content-based curriculum
- The equipment of all learners with the knowledge, competencies and orientations needed to be successful after completing their studies
- The development of a culture of human rights, multilingualism, multiculturalism and a sensitivity to the values of reconciliation and nation building
- The production of thinking, competent future citizens (Van der Horst & McDonald 2008:17).

- **The Kind of Learner Envisaged in the RNCS**

  The RNCS faces a challenge, which is how the “goals and values of social justice, equality and democracy can be interwoven across the curriculum” (DoE 2002b:8). It is very important to guarantee that a nationalised South African character is based on principles that are unlike those emphasised in the various apartheid education systems. The RNCS therefore endeavours to advance the capability of learners as people of a democratic South Africa. It aims to produce a lifelong learner who is:

  - Confident
  - Independent
  - Literate
  - Numerate
  - Multi-skilled
  - Compassionate
  - Respectful of the environment
  - Able to participate in society as a critical and active citizen (DoE 2002b:8).
• The Kind of Educator That is Envisaged
Educators are significant providers of the change and improvement in education in South Africa and have an important function and responsibility in the success of the RNCS. The RNCS envisages educators who are:
  o Qualified
  o Competent
  o Dedicated
  o Caring
  o Able to fulfil the various roles outlined in the Norms and Standards for Educators of 2000 (Government Gazette Number 20844). These norms and standards see educators as
    • Mediators of learning
      ▪ Interpreters and designers of Learning Programmes and materials
      ▪ Leaders
      ▪ Administrators and managers
      ▪ Scholars
      ▪ Researchers and lifelong learners
      ▪ Community members
      ▪ Citizens and pastors
      ▪ Assessors and learning area / phase specialists (DoE 2002b:9).

2.2 PRINCIPLES OF THE REVISED NATIONAL CURRICULUM STATEMENT

2.2.1 SOCIAL JUSTICE, A HEALTHY ENVIRONMENT, HUMAN RIGHTS AND INCLUSIVITY
The RNCS places much emphasis on making learners aware of human rights, a healthy environment, social justice and inclusivity. It aims to ensure that all of the
various Learning Area Statements show the principles and values of “social justice, respect for the environment and human rights as defined in the Constitution” (Van der Horst & McDonald2 2008:17), and emphasises sensitivity to issues such as poverty, inequality, race, gender, age, disability, and HIV / AIDS (DoE 2002b:10; Van der Horst & McDonald 2008:17).

2.2.2 OUTCOMES-BASED EDUCATION
This type of education system starts by designing the desired outcomes to be achieved by the learner. These end goals explain and illustrate the information, abilities, and morals that learners should attain and exhibit throughout the learning experience. Outcomes-Based Education will be discussed in depth later on in this chapter (DoE 2002b:10-11; Van der Horst & McDonald 2008:18).

2.2.3 A HIGH-LEVEL OF SKILLS AND KNOWLEDGE FOR ALL
The RNCS sets high expectations of what learners should accomplish. Social justice requires that all learners in South Africa achieve the same level of knowledge and skills in the GET Band. Toward this end the RNCS sets specific criteria for the various learning areas, and indicates the minimum levels of knowledge and ability that should be achieved by each learner in each grade. It therefore provides a plan for the gradual expansion of the levels of skills and knowledge that is necessary in order to achieve desired outcomes by the time learners complete grade 9, the final level of the GET Band (DoE 2002b:12; Van der Horst & McDonald 2008:19).

2.2.4 CLARITY AND ACCESSIBILITY
The RNCS aspires towards unmistakably clear and understandable design and utilisation of language. The learning outcomes and assessment standards are

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2 The reader should note that the perspectives provided on OBE and the RNCS in this study rely heavily on those derived from Van der Horst. & Mc Donald’s book Outcomes-Based Education: Theory and Practice of 2008. Further sources on this topic to which the reader may refer, not included in this study, are John Biggs and Catherine Tang: Teaching for Quality Learning at University (2007); Graham Gibbs: Teaching Students to Learn: A Student-Centered Approach (1981); Phil Race: The Lecturer’s Toolkit (2001); Paul Ramsden: Improving Learning: New Perspectives (1988); Maddelena Taras: Innovations in Learning and Teaching (1999) and Cathy Lucett: An Investigation into some Curriculum Development Issues (1995).
two design characteristics that plainly explain the aims and end results that each individual learner needs to attain in order to advance to the next grade in South Africa’s education system. The RNCS is obtainable in all of our official languages, as well as Braille (DoE 2002b: 12; Van der Horst & McDonald 2008: 19).

2.2.5 **PROGRESS AND INTEGRATION**
Integrated learning attempts to ensure that learners are able to make connections both within and across the different Learning Areas in the curriculum. This principle is intended to enhance their ability to master skills, process knowledge and acquire viewpoints and morals included in the curriculum in a meaningful and useful way, and to make such connections in an increasingly complex way from grade to grade. Evaluation standards should never be approached in isolation. In order to promote conceptual learning, integrated evaluation criteria are applied in and across Learning Outcomes and Learning Areas within any one grade, as well as from one grade to the next (DoE 2002b:13; Van der Horst & McDonald 2008:19).

2.3 **OUTCOMES-BASED EDUCATION**

2.3.1 **DEFINITION AND PRINCIPLES**
Outcomes-Based Education is a course of action that involves the reorganisation of syllabi, evaluation and the coverage of systems in education to show the accomplishment of education, instead of the “accumulation of course credits” (Butler 2004:3). OBE is defined as a “…comprehensive approach to organising and operating an education system that is focussed in and defined by the successful demonstrations of learning sought from each student”, and a document from the Education Department of Western Australia explains OBE as “an educational process which is based on trying to achieve certain specified outcomes in terms of individual student learning. Thus, having decided what are
the key things students should understand and be able to do or the qualities they should develop, both structures and curricula are designed to achieve those capabilities or qualities. Educational structures and curriculum are regarded as means not ends” (Spady 1994 and Willis & Kissane 1995 cited in Butler 2004:3-4). In OBE, educators and learners focus on two aspects, namely, on the “desired end results of each learning process”, and on the “instructive and learning processes that guide the learners to these end results”, and thus OBE is centred around learners and is oriented around achieving results (Van den Horst & McDonald 2008:5). According to Butler (2004), the primary aim of OBE is to assist with the changes within the learners, by multiplying learning and education, increasing abilities and/or having a positive effect on outlooks, standards and opinions. OBE holds the belief that the best way to understand and gather information is to initially decide on what it is that needs to be accomplished. As soon as the outcome has been decided, the approach, method, procedure and other added ways and measures can be put into place to attain the objective (Butler 2004:3).

The critical and developmental outcomes are a listing of outcomes that are obtained from the Constitution and these are included in the South African Qualifications Act (1995). These outcomes depict the type of member of society that the education and training system ought to aspire to create (DoE 2002a:11).

The critical outcomes see learners who will be able to:

- Identify and solve problems and make decisions using critical and creative thinking
- Work effectively with others as members of a team, group, organisation and community
- Organise and manage themselves and their activities responsibly and effectively
- Collect, analyse, organise and critically evaluate information
• Communicate effectively using visual, symbolic and / or language skills in various modes
• Use Science and Technology effectively and critically showing responsibility towards the environment and the health of others
• Demonstrate an understanding of the world as a set of related systems by recognising that problem-solving contexts do not exist in isolation (http://www.mml.co.za).

The developmental outcomes see learners who will be able to:
• Reflect on and explore a variety of strategies to learn more effectively
• Participate as responsible citizens in the life of local, national, and global communities
• Be culturally and aesthetically sensitive across a range of social contexts
• Explore education and career opportunities
• Develop entrepreneurial opportunities (http://www.mml.co.za).

OBE has four specific beliefs:
• To allow students to reach their full abilities and potentials
• To build the self-esteem of students, which will, in turn, result in better results and marks
• To create a positive learning environment wherein students can be motivated to achieve the desired results
• Everybody involved in education must and should share in the onus for learning (Van den Horst & McDonald 2008:5-6).

According to Spady, OBE has four principles, which jointly reinforce the requirements for the accomplishments of both learner and educator:

• **Clarity of Focus**
  This deduces that curriculum growth and expansion, execution and assessment must be driven by the results which are required. This principle defines that the demonstration of the end goal is vital for high-
quality end results. Educators must indicate clearly what it is that they want their learners to achieve.

- **Design Down**
  When the goals have been recognized and indicated, then the syllabus is planned. Curricular and learning pursuits must be devised back from the position where the “exit outcomes” are required to occur.

- **High Expectations**
  Having high expectations brings out an elevated degree of standards than would usually be required, and as a result, learners are required to reach higher levels.

- **Expanded Opportunities**
  These give a more adaptable and accommodating approach regarding time and teaching styles, that are geared towards the requirements of the learner and that give them more than one chance to achieve something and be successful (Spady\(^3\) 1994 in Butler 2004:8-9).

**2.3.2 ROOTS OF OUTCOMES-BASED EDUCATION**
Malan (2000) cites William Spady, respected as one of the leading campaigners of OBE, in pointing out that outcomes-based approaches towards education can be dated as far as 500 years ago to that of the craft guilds of the Middle Ages in the ways of apprenticeship education. Malan analyses past educational developments which had a direct influence on OBE. These are briefly described below.

**2.3.2.1 The Educational Objectives Movement**
There was a clash between what was being taught and what was essentially being learnt, and this led to goals and aims being put into place for educators and learners. Documents as far back as 1860 have been traced wherein such objectives were devised. In 1924, Herbart\(^4\) in Germany put emphasis on the

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\(^3\) William Spady is a sociologist and the self-proclaimed father of Outcome-Based Education (OBE).

\(^4\) Johann Friedrich Herbart was a German philosopher, psychologist, and founder of pedagogy as an academic discipline.
planning of lessons and clearly stating the goals of lessons and activities. In 1949 Tyler\textsuperscript{5} laid emphasis on the importance of having specific goals in designing curricula and teaching systems. He asked four questions as the basis for his argument:

- What educational objectives should the school aim to achieve?
- How does one select learning experiences that are likely to be useful in attaining these objectives?
- How should learning experiences be organised for effective instruction?
- How would the effectiveness of learning experiences be evaluated?

Tyler’s reasoning has since been used by many curriculum experts and specialists. The central OBE ideas for the designing of curricula are ingrained in that of Tyler’s models (Malan 2000:23; Van der Horst & McDonald 2008:7).

2.3.2.2 \textbf{The Competency-Based Movement}

This educational system was introduced in the 1960’s in America as a response to the worry that learners were not being educated in or achieving the expertise that they needed after leaving school. Competency-based education is based on seven very significant factors:

- Explicit learning outcomes with respect to required skills and concomitant proficiency, and the need to design standards for assessment accordingly
- A flexible time frame to master these skills
- A variety of instructional activities to facilitate learning
- Criterion-referenced testing of the required outcomes
- Certification based on demonstrated learning outcomes
- Adaptable programmes to ensure optimum learner guidance
- Support for the notion that the learner is accountable for his or her own achievements (Malan 2000:23; Van der Horst & McDonald 2008:9).

\textsuperscript{5} Ralph W. Tyler was an American educator who worked in the field of assessment and evaluation.
2.3.2.3 **The Mastery Learning Movement**

This was originally established to offer intervention curricula for students with minor disabilities and those who were at risk in normal learning surroundings. With adequate prospects, encouraged by beneficial learning settings, objects and assistance, a large amount of learners would flourish and be successful in their assignments and projects. The list below characterises the underlying approach of the Mastery of Learning Movement, many of which are also shown in OBE:

- Ascertaining prerequisite knowledge or skills to attain goals
- A flexible time frame to achieve goals
- Using different media and materials to create enriched teaching / learning contexts
- Formative evaluation to provide feedback for both teaching and learning improvement (Malan 2000:24; Van der Horst & McDonald 2008:10).

2.3.2.4 **Criterion-Referenced Instruction and Assessment**

This type of teaching and evaluation is well-known and forms a fundamental part of all kinds of performance-based assessment approaches. It is established on accomplishing certain and detailed goals and assessed for competency on the basis of instructions given in the objective. This kind of assessment “compares a learning outcome or mastery of competencies with a predetermined external standard” (Malan 2000:24). If one achieves the required standards, then this implies accomplishment, but if one doesn’t manage to achieve the standards, then it implies that the student is “not yet up to standard”, and will receive remedial lessons to help with the situation. According to Malan, criterion-referenced assessment is the favoured means of evaluation in OBE (Malan 2000:24; Van der Horst & McDonald 2008:10-11).

2.3.3. **MAIN FEATURES OF THE OBE APPROACH**

2.3.3.1 **It is Outcomes-Driven**

This education model has a line that goes from setting a goal for a syllabus, aims for curricula topics, learning outcomes, and ultimately evaluating the learning
outcomes with the requisites of the established learning purposes and intentions (Malan 2000:24).

2.3.3.2 **It Has a Design-Down Approach**
Learning contents are decided on only after the required outcomes have been identified. These contents or syllabus details are a means to attain the necessary learning outcomes, which, as described above, are intended to impart knowledge and skills that will last for a life-time (Malan 2000:24).

2.3.3.3 **It Specifies Outcomes and Levels of Outcomes**
The learning purposes are explained in terms of Bloom’s (1956) cognitive, affective and psychomotor spheres and established according to Mager’s (1984) rules for devising goals (Malan 2000:24)\(^6\).

2.3.3.4 **The Focus Shifts from Teaching to Learning**
This approach to teaching is learner-focused in that educators act as facilitators and guides instead of dictators. They assist the learners to arrange their study activities. Group work, continuous evaluation and self-evaluation are important characteristics (Malan 2000:24).

2.3.3.5 **The Framework is Holistic in its Outcomes Focus**
Despite the fact that the learning outcomes objectives are at basic levels – i.e. minimum outcomes are described - they are related to aspirations and endeavours that are at much more complex and difficult levels. Thus, reaching the learning intentions isn’t the end result – it gives us stepping stones to reach the higher-level outcomes (Malan 2000:24).

\(^6\) Benjamin Bloom was an educational psychologist who made contributions to the classification of educational objectives and to the theory of mastery-learning. R.F. Mager was an educationalist who firmly believed in setting and devising goals in teaching and education.
2.3.4 PHILOSOPHY OF OBE

Outcomes-Based Education can be regarded as a theory, model, or notion of education. Mollie Butler says that within OBE, there are particular and specified principles and ideas about studying, educating and general arrangements within which activities and assignments take place (Butler 2004: 7). In 1994 William Spady put forward three fundamental suppositions:

- all learners can learn and succeed
- success breeds success
- and “teaching institutions” (schools) control the conditions of success (Spady 1994 in Butler 2004:7).

According to Killen (2000), there are two basic kinds of outcomes. The first incorporates performance gauges which are frequently assessed by means of "test results, completion rates, post-course employment and so forth". It also places importance on the way in which the learner grasps and comprehends traditional and established subjects. The second kind of outcome is less concrete, and is shown by what the learners know and what they are able to perform and accomplish because of the education they have received. It puts emphasis on lasting and long-standing results, which is connected to what the learner will be and accomplish in the future – for instance, being a fruitful member of society (Killen 2000 in Butler 2004:7). Spady (1994) calls these two methods traditional (content-based) and transformational (outcomes-based) education approaches. Below is a table drawn up by Spady showing the differences between these two kinds of learning systems.

<table>
<thead>
<tr>
<th>Table 2.1. Content-Based Learning versus Outcomes-Based Learning²</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Content Based Learning System</strong></td>
</tr>
<tr>
<td>Passive students</td>
</tr>
<tr>
<td>Assessment process – exam and grade driven</td>
</tr>
<tr>
<td>Rote learning</td>
</tr>
<tr>
<td>Content based / broken into subjects</td>
</tr>
</tbody>
</table>

connected real life situations

Textbook / worksheet focussed and teacher centred
See syllabus as rigid and non negotiable
Teachers / trainers responsible for learning – motivated by personality of educator
Emphasises what teacher hopes to achieve
Content placed in rigid time frames
Stay in single learning institution until complete
Previous knowledge and experience in learning field ignored – each time attends whole course

Learner centred and educators / facilitators use group / teamwork
Learning programmes seen as guides that allow educators to be innovative and creative in designing programmes / activities
Learners take responsibility for their learning; learners motivated by constant feedback / affirmation of worth
Emphasises outcomes – what learner becomes and understands
Flexible time frames – learners work at their own pace
Learners can gather credits in different institutions until qualification is achieved
Recognition of prior learning: after pre-assessment; learners credited with outcomes demonstrated and may transfer credits elsewhere.

The table below provides further insight into the nature of transformational OBE.

<table>
<thead>
<tr>
<th>“NOT TO (O)BE”</th>
<th>“TO (O)BE”</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transformational OBE is NOT:</td>
<td>Transformational OBE is:</td>
</tr>
<tr>
<td>• Defined by time and calendar (class periods, semester tests)</td>
<td>• Defined by outcomes</td>
</tr>
<tr>
<td>• Limited by teaching time and learning opportunities (end of period, end of learning experience)</td>
<td>• Expanded in opportunity (it goes beyond traditional seat time as learning time)</td>
</tr>
<tr>
<td>• Based on assessment of attendance and ambiguous criteria (not criteria which clearly measure what the learners know)</td>
<td>• Based on performance outcomes success – what the learner should be able to do</td>
</tr>
</tbody>
</table>

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and can do)

- Tied to “covering” the curriculum, thus content-driven
- Aided by instructional coaching (learners receive learning guidance by means of feedback and explanation)
- Compartmentalised in content (traditional subjects)
- Integrated in concepts (cross-curriculum approach to outcomes; learning areas)
- Based on cumulative achievement
- Based on cumulating achievement of the desired learning outcomes
- Selection oriented (Those who pass are “winners”, the other “losers”)
- Oriented to inclusive success (all can and most progress according to individual ability)
- Characterised by contest learning and competition
- Characterised by co-operative learning (working together such as in group discussions and projects)
- Dependant on comparative evaluation
- Confirmed by criterion validation
- Composed of separate, cellular structures (in school and curriculum, et cetera)
- Formed on collaborative structures (for curriculum planning, instruction and learning)

2.3.5 REASON FOR OBE

William Spady reminds us that in OBE, the choice of what and whether the learners are taught and trained is more significant than when and how the students learn it. Accordingly he recognises two imperative goals for OBE:

- Make certain that learners flourish in the manner in which they are provided with the education, expertise and virtues that they will need when exiting school
- The particular requirements and goals for each and every learner can best be achieved by arranging, organising and managing teaching facilities to be success driven (Spady 1994 in Butler 2004:9-10).

Spady also believes that if learners are to achieve the required outcomes to the best of their individual abilities, they should not be given an exact time-frame within which to do it, as all learners have various ways of learning as well as
different speeds within which they learn. The sharing and giving of knowledge is reliant on the readiness of educators to have faith in the method and to encourage learners in their education. OBE philosophy needs educators to put emphasis on achieving outcomes rather than on merely offering a service, and thus it is very different from the conventional and established forms of education. These differences pertain to

- Structure
- Comprehension of time
- What and how principles and values are measured
- How accomplishment is agreed upon on (Spady 1994 in Butler 2004).

The table below expands on the differences between content-based and outcomes-based education by providing Spady’s breakdown of their respective learning system characteristics.

Table 2.3. Learning Systems: Content-Based versus Outcomes-Based

<table>
<thead>
<tr>
<th>Learning Characteristics</th>
<th>System</th>
<th>Content Based (Traditional / Transactional)</th>
<th>Outcomes Based (Transformational)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Framework</td>
<td></td>
<td>• Predefined curriculum, assessment and credentialing in place</td>
<td>• Curriculum instructional strategies, assessment and performed standards</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Structures “ends”, no defined learner’ outcomes</td>
<td>• Structured support outcomes, flexible &amp; a means to define “learning ends”</td>
</tr>
<tr>
<td>Time</td>
<td></td>
<td>• Inflexible constraint for educator and learner schedule controls learning and success</td>
<td>• Used alterable source – match needs of educator and learners</td>
</tr>
<tr>
<td>Performance Standards</td>
<td></td>
<td>• Comparative and competitive approach</td>
<td>• Learners potentially able receive credit for achieving performance standards</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Linked to predetermined “curve” or quota of</td>
<td></td>
</tr>
</tbody>
</table>

### Learning assessments

<table>
<thead>
<tr>
<th>Possible successes</th>
<th>No quotas and standards pursued</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continuous testing and permanent grading</td>
<td>Macro view of learning and achievement</td>
</tr>
<tr>
<td>Mistakes on permanent record: best grades and records fast and consistent performers: slower learners never catch up</td>
<td>Mistakes are inevitable steps in development, internalising and demonstrating high level of performance capabilities</td>
</tr>
<tr>
<td>Never assess / document what learners can ultimately do successfully</td>
<td>Ultimate achievement of what they are able to do</td>
</tr>
</tbody>
</table>

#### 2.3.6. EVALUATION CRITERIA

Evaluation criteria must correspond to the following standards in order to be valuable in an OBE system:

- The assessment procedures should be valid – they should assess what they are intended to assess
- The assessment procedures should be reliable – they should give consistent results
- The assessment procedures should be fair – they should not be influenced by any irrelevant factors, such as the learner’s cultural background
- Assessment should reflect the knowledge and skills that are most important for learners to learn
- Assessment should tell educators and individual learners something they do not already know, stretching learners to the limits of their understanding and ability to apply their knowledge
- Assessment should be comprehensive and explicit
- Assessment should support every learner’s opportunity to learn things that are important
Because learners are individuals, assessment should allow this individuality to be demonstrated (Killen 2000 in Butler 2004:11-12).

The criteria applied during the evaluation procedure must be recognised and so devised that all learners are informed about them before their work is assessed. The changeover from traditional / transactional (content-based) to transformational (outcomes-based) learning requires educators to assist in the learning process by designing and developing learning prospects, and it requires learners to be actively involved in the learning process. Both of these roles are vital (Butler 2004:12).

OBE has both positive and negative characteristics, for the most part from a transformational perspective. It encourages a sensible and logical take on education as a process instead of it being an end in itself. OBE requires that educators put their efforts into the process of educating and reaching goals as set out in the curriculum, instead of merely attaining good marks from their learners. In OBE, learning isn’t educator- and time-oriented anymore, and educators have to be far more focussed on establishing positive classroom environments and on the needs of their learners (Butler 2004:12-14).

2.4 LEARNING OUTCOMES IN OUTCOMES-BASED EDUCATION

2.4.1 A BRIEF DEFINITION OF A LEARNING OUTCOME
Learning outcomes are developed from critical and developmental outcomes. They provide an explanation and account of what (knowledge, skills and morals) learners should know, display and be able to perform at the end of the General Education and Training (GET) band. A group of learning outcomes should guarantee integration and progression in the advancement of ideas, proficiency, and principles through the evaluation standards. Learning outcomes do not
2.4.2 **A BRIEF DEFINITION OF AN ASSESSMENT STANDARD**
Assessment criteria describe the standard at which learners should display their accomplishment of the learning outcome/s and the manner (depth and breadth) of showing and exhibiting their achievement. They are particular to specific grades and indicate how theoretical and conceptual progression will transpire in a Learning Area. They exemplify the knowledge, skills and values that are needed to accomplish learning outcomes. Like learning outcomes they also do not prescribe a method (DoE 2002b:14; Van der Horst & McDonald 2008:48).

2.4.3 **THE DIFFERENCE BETWEEN AN ASSESSMENT STANDARD AND A LEARNING OUTCOME**
Learning outcomes explain what learners should know and what they should be capable of doing. Assessment standards illustrate the minimum level, depth and breadth of what is supposed to be learnt. In practical terms, this means that learning outcomes can and will, for the majority of the time, stay unchanged from grade to grade while assessment standards will alter from grade to grade (DoE 2002b:14; Van der Horst & McDonald 2008:48).

2.4.4 **LEARNING PROGRAMMES**
The Revised National Curriculum Statement Grades R-9 (Schools) is put into practice in schools by means of Learning Programmes. These are categorised and organised arrangements of activities that further the accomplishment of learning outcomes and assessment standards for each grade.

While the Revised National Curriculum Statement (RNCS) specifies the ideas, skills and values in a grade-to-grade manner, Learning Programmes indicate the range of learning and assessment activities per phase. Learning programmes also contain work timetables that show the rate and order of these activities each year as well as examples of lesson plans to be put into practice at any given
time. The fundamental principles and values of the RNCS also support the Learning Programmes.

Learning Programmes must make sure that all of the learning outcomes and assessment standards are effectively and successfully followed and that each Learning Area is given its recommended time and emphasis. Learning Programmes will be founded on relationships among learning outcomes and assessment standards without compromising the reliability of the Learning Areas (DoE 2002b:15; Van der Horst & McDonald 2008:49).

2.4.5 **LEARNING PROGRAMMES PER PHASE**

In the GET Band of schooling, there are three phases, namely the Foundation Phase (Grade R – Grade 3), the Intermediate Phase (Grade 4 – Grade 6) and the Senior Phase (Grade 7).

The compulsory Learning Areas for each of these three phases is set out below.

In the Foundation Phase, there are three Learning Programmes:

- Literacy
- Numeracy
- Life Skills (Van der Horst & McDonald 2008:51-58)

In the Intermediate Phase, Languages and Mathematics are definite and clear Learning Programmes. Learning Programmes must make certain that the approved and agreed upon outcomes for each Learning Area are dealt with effectively and methodically. Schools may choose to implement additional Learning Programmes - based on managerial constraints and obligations of the school - provided that national priorities and developmental requirements of learners in a phase are taken into consideration. The Intermediate Phase has five learning areas:

- Language, Literacy and Communication
- Mathematical Literacy, Mathematics and Mathematics Sciences
• Natural Sciences and Technology
• Human, Social, Economic and Management Sciences
• Arts and Culture
• Life Orientation (Van der Horst & McDonald 2008:51-58).

In the Senior Phase, there are eight Learning Programmes established by the Learning Area Statements. These are:
• Language, Literacy and Communication
• Mathematical Literacy, Mathematics and Mathematics Science
• Natural Sciences
• Technology
• Human and Social Sciences
• Economic and Management Sciences
• Arts and Culture
• Life Orientation (Van der Horst & McDonald 2008:51-58).

Educators are accountable for and in charge of developing and creating Learning Programmes. The Department of Education provides policy instructions and guidelines for the development of Learning Programmes in order to assist and support this course of action. Provinces develop additional guidelines where needed to accommodate diversity and variety. Educator tutoring programmes increase the ability of educators, school managerial teams and departmental support staff to develop, apply, administer and sustain the development of Learning Programmes (Van der Horst & McDonald 2008:49).

2.4.6 LEARNING PROGRAMME GUIDELINES
In order to guarantee accomplishment of national standards laid down by the RNCS, document guidelines for pertinent and suitable Learning Programmes have been developed at national level in partnership with provinces. These guidelines put emphasis on the principle of integrated learning and the attainment of a favourable and advantageous relationship between integration
across Learning Areas and conceptual development from grade to grade. The National Education Policy Act (1996, section 3, paragraph 4) authorises the Minister of Education to establish, amongst other things, such a national policy guideline for the advancement of Learning Programmes.

These policy guidelines provide information and guidance on:

- Integration within and across learning areas
- Clustering of assessment standards
- Relationships between learning outcomes
- Time allocation
- Assessment
- Barriers to learning
- Designing a Learning Programme
- Policy and legislation
- Training, development and delivery
- Resourcing and support
- Planning and organisation.

These guidelines are put into operation within the perspective of existing policy and governmental outlines such as the six White Papers on Education, the National Education Policy Act (1996), the South African Schools Act (1996), and the Employment of Educators Act (1998). Learning Programme guidelines will recommend a basis to concentrate on and attend to particular learner and contextual needs (Van der Horst & McDonald 2008:50).

2.4.7 TIME ALLOCATIONS

In terms of the National Education Policy Act, (1996), the formal teaching time per school week is 35 hours, although this may vary from one phase to the next. These recommended minimum teaching hours per week are set out in the following table:
Table 2.4. Minimum Recommended Teaching Hours per Week for Each of the Learning Phases in the GET Band

<table>
<thead>
<tr>
<th>Phase</th>
<th>Grade</th>
<th>Teaching Time per Week</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foundation phase</td>
<td>R, 1 and 2, 3</td>
<td>22 hours 30 minutes 25 hours</td>
</tr>
<tr>
<td>Intermediate phase</td>
<td>4, 5 and 6</td>
<td>26 hours 30 minutes</td>
</tr>
<tr>
<td>Senior phase</td>
<td>7, 8 and 9</td>
<td>26 hours 30 minutes 27 hours minutes</td>
</tr>
</tbody>
</table>

A breakdown of formal teaching time allocations per Learning Area for the Foundation Phase is presented below as percentages of the times in Table 2.4 above.

Table 2.5. Recommended Percentages of Time to be Spent per Learning Area in the Foundation Phase

<table>
<thead>
<tr>
<th>Learning Programme</th>
<th>Time (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Literacy</td>
<td>40%</td>
</tr>
<tr>
<td>Numeracy</td>
<td>35%</td>
</tr>
<tr>
<td>Life Skills</td>
<td>25%</td>
</tr>
</tbody>
</table>

A breakdown of formal teaching time allocations per Learning Area for the Intermediate and Senior Phases are presented below as percentages of the times in Table 2.4 above.

Table 2.6. Recommended Percentages of Time to be Spent per Learning Area in the Intermediate and Senior Phases

<table>
<thead>
<tr>
<th>Learning Area / Programme</th>
<th>Time %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Languages</td>
<td>25%</td>
</tr>
<tr>
<td>Mathematics</td>
<td>18%</td>
</tr>
<tr>
<td>Natural Sciences</td>
<td>13%</td>
</tr>
</tbody>
</table>

10 Reproduced from DoE 2002b:17.
11 Reproduced from DoE 2002b: 17.
12 Reproduced from DoE 2002b: 18.
### Table 2.7. The Eight Learning Areas, as Defined in the RNCS

<table>
<thead>
<tr>
<th>Learning Area</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Sciences</td>
<td>12%</td>
</tr>
<tr>
<td>Technology</td>
<td>8%</td>
</tr>
<tr>
<td>Economic and Management Sciences</td>
<td>8%</td>
</tr>
<tr>
<td>Life Orientation</td>
<td>8%</td>
</tr>
<tr>
<td>Arts and Culture</td>
<td>8%</td>
</tr>
</tbody>
</table>

### 2.5 A GENERAL OVERVIEW OF THE LEARNING AREAS IN OUTCOMES-BASED EDUCATION

A Learning Area is a field of knowledge, skills and values which has unique features. Each Learning Area also has connections with other fields of knowledge. The RNCS defines eight Learning Areas, briefly defined in the table below:

**Languages (Lang.)**

Language is used for personal communication, educational, aesthetic, creative, cultural, political and critical purposes, plus the rest of the curriculum is learnt through language. Six Learning Outcomes focus on listening, speaking, reading / viewing, writing, thinking and reasoning, and language structure and use. These are integrated when engaging with ‘texts’ in various media.

**Mathematics (Maths)**

Mathematics involves observing, representing and investigating patterns and quantitative relationships in physical and social phenomena and between mathematical objects. Mathematical symbols and notation form a specialised language. Five Learning Outcomes focus on number and operations, patterns (into algebra), space and shape (geometry), measurement, data.

---

<table>
<thead>
<tr>
<th>Natural Science (NS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Science has been shaped by the search to understand the natural world through observation, codifying and testing ideas. Three Learning Outcomes promote scientific investigations, science knowledge, and the relationships between science, society and the environment.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Social Sciences (SS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relationships between people, and between people and the environment, are studied as they vary over time and place. Six Learning Outcomes focus on enquiry, knowledge and understanding, and interpretation or within history (Hist.) and Geography (Geog.).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Technology (Tech)</th>
</tr>
</thead>
<tbody>
<tr>
<td>People have used knowledge, skills and available resources to develop products or systems to meet our needs and wants. Three Learning Outcomes focus on applying technological processes and skills, knowledge and understanding, and the relationships between technology, society and the environment.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Economic and Management Sciences (EMS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learners study private, public or collective use of resources in satisfying needs and wants, with the impact of exploiting resources. Four Learning Outcomes focus on the economic cycle, sustainable growth and development, and managerial, consumer, financial and entrepreneurial knowledge and skills.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Life Orientation (LO)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learners are guided and prepared for life and its possibilities. Five Learning Outcomes promote health, social, personal and physical development, and in the higher grades orientate learners to the world of work.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Arts and Culture (A&amp;C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learners develop their potential in drama, visual arts, dance and music. Four Learning Outcomes focus on creating and interpreting art works, history of the arts, culture and heritage, individual and group participation, and communication and expression.</td>
</tr>
</tbody>
</table>
A brief definition and description of outcomes for each of these Learning Areas is provided below.

### 2.5.1 LANGUAGES

#### 2.5.1.1 Definition

The Languages Learning Area Statement incorporates:

- All eleven of South Africa’s official languages: Sepedi, Sesotho, Setswana, siSwati, Tshivenda, Xitsonga, Afrikaans, English, isiNdebele, isiXhosa and isiZulu
- Languages authorised by the Pan South African language Board (PANSLAB) and the South African Certification Authority (SAFCERT) such as Braille and South African Sign Language.

In a multilingual nation such as South Africa, it is vital that our learners achieve great levels of skill in at least two languages, and that they are able to converse in other languages.

The Languages Learning Area Statement follows an additive or augmentative approach toward multilingualism:

- All learners learn their mother-tongue and a minimum of one additional official language.
- Learners become capable and proficient in their additional language, while their home language continues to be sustained and improved.

The Languages Learning Area Statement encompasses all endorsed languages such as:

- Home languages
- First additional languages
- Second additional languages.
Learners’ home languages must be used for teaching and learning where possible. This is predominantly imperative in the Foundation Phase where children learn to read and write. When learners have to make a change from their home language to an extra language for teaching and learning, thorough and meticulous preparation by the educator is essential (DoE 2002b:19-20; Van der Horst & McDonald 2008:52).

2.5.1.2 Outcomes

- **Listening:** The student is able to listen for information and pleasure, and answer and reply aptly and analytically in an extensive range of circumstances
- **Speaking:** The learner is able to converse assertively, with assurance and efficiently in a spoken language in a broad scope of situations
- **Reading and Viewing:** The learner is able to read and observe for facts and gratification, and respond analytically to the aesthetic, cultural and emotional significance in texts
- **Writing:** The learner is able to write numerous types of accurate and creative texts for a varied range of uses
- **Thinking and Reasoning:** The learner is capable of using language to reflect and rationalise, and retrieve, understand and make use of information for learning
- **Language Structure and Use:** The learner knows and is skilled to use the sounds, words and the sentence structure and language rules to create and understand texts (DoE 2002b:20-21; Van der Horst & McDonald 2008:52-53).

Listening and conversing, reading and observing, writing, thinking and rationalising, and the understanding of sounds, words and grammar - even though portrayed as distinct outcomes - should be integrated in teaching and evaluation (DoE 2002b:21; Van der Horst & McDonald 2008:53).
2.5.2 MATHEMATICS

2.5.2.1 Definition

Mathematics is a human pursuit that entails viewing, demonstrating and examining patterns and quantitative relationships in tangible and societal phenomena and between mathematical entities themselves. By means of this practice, new mathematical data and insights are produced.

Mathematics uses its own particular language that includes symbols and notations for explaining numerical, geometric, and graphical relationships. Mathematical notions build on one another, and in this manner form a logical and coherent structure.

Mathematics is a result of study by various societies; it is a purposeful activity in the context of social, political and economic objectives and restrictions. It is not value-free or culturally-unbiased (DoE 2002b:21; Van der Horst & McDonald 2008:53).

2.5.2.2 Outcomes

- **Numbers, Operations and Relationships:** The learner is capable of distinguishing, explaining and representing numbers and their relations and can count, approximate, determine and check with proficiency and self-assurance in finding the solution to mathematical questions

- **Patterns, Functions and Algebra:** The learner is able to recognise, explain and represent numbers, and answer problems using mathematical language and skilfulness

- **Space and Shape:** The learner is capable of explaining and representing traits, features and relationships involving 2-D and 3-D items in a range of orientations and arrangements

- **Measurement:** The learner is able to use suitable calculating elements and formulas in an assortment of contexts
Data Handling: The learner is able to accumulate, sum up, exhibit and critically analyse information and make calculations, and to decipher and determine chance variation (DoE 2002b:21; Van der Horst & McDonald 2008:53).

2.5.3. NATURAL SCIENCES

2.5.3.1 Definition

What is nowadays known as ‘Science’ has its origins in African, Arabic, Asian, American and European ethnicities. It has been influenced by trying to understand the natural world through observation, codifying and analysing notions, and has developed to become a component of the cultural custom of all countries. It is normally ‘characterised by the possibility of making precise statements which are susceptible of some sort of check or proof’ (McGraw-Hill Concise Encyclopaedia of Science and Technology:1647).

The Natural Sciences Learning Area Statement acknowledges a teaching and learning environment wherein the inhabitants of South Africa have a diversity of study methods as well as culturally influenced viewpoints. The Natural Sciences Learning Area starts from the idea that all learners must receive a good quality science education. Meaningful education has to be learner-focused. It must enable the learners to grasp not only scientific information and facts and how it is created but also the ecological and international concerns. The Natural Sciences Learning Area aspires to supply the groundwork on which learners can build throughout their lives (DoE 2002b:22; Van der Horst & McDonald 2008:54)

The Natural Sciences Learning Area Statement advances scientific literacy. It does so by putting an emphasis on:

- The expansion and utilisation of science process skills in many different situations
- The development and utilisation of scientific knowledge and comprehension
• Appreciation of the relations and responsibilities between Science, the population and the surroundings (Doe 2002b:22; Van der Horst & McDonald 2008:54).

2.5.3.2 Outcomes

• Scientific Investigations: Learners act with assurance on their inquisitiveness about natural phenomena; they examine correlations and links, and solve questions in Science, Technology and the environment

• Constructing Science Knowledge: Learners know, clarify, explain and put into use scientific, technological and environmental information

• Science, Society and the Environment: Learners are capable of displaying a comprehension of the interrelationships among Science and Technology, the public and the surroundings (DoE 2002b:23; Van der Horst 2008:54).

2.5.4 SOCIAL SCIENCES

2.5.4.1 Definition

The Social Sciences study connections between people, and between people and the surroundings in which they find themselves. These relationships change over time and space. They are also swayed by social, political, economic and environmental situations, and by people’s morals, ways of thinking and convictions.

The notions, abilities and processes of History and Geography form vital parts of the Social Sciences Learning Area Statement. Environmental education and human rights instruction are essential to both History and Geography.

The Social Sciences Learning Area Statement expresses an interest in what learners learn, the manner in which they learn and how learners piece together information. The Learning Area Statement persuades learners to ask and find solutions to questions in society and the surroundings in which they live.
The Learning Area Statement has a goal of playing a role in the development of enlightened, critical and reliable members of society who are capable of contributing positively in a culturally varied and transforming society. It also prepares learners to add to the advancement of a just and independent society (DoE 2002b:23; Van der Horst & McDonald 54-55).

2.5.4.2 Outcomes

History
- **Historical Enquiry**: The learner is able to make use of enquiry skills to examine the past and present-day
- **Historical Knowledge and Understanding**: The learner is able to show historical knowledge and insight
- **Historical Interpretation**: The learner is able to understand features of history (DoE 2002b:24; van der Horst & McDonald 2008:55).

Geography
- **Geographical Enquiry**: The learner is able to make use of enquiry skills to examine and look into geographical and environmental concepts and processes
- **Geographical Knowledge and understanding**: The learner is able to exhibit geographical and environmental knowledge and comprehension
- **Exploring Issues**: The learner is capable of making enlightened choices about social and environmental matters and difficulties (DoE 2002b:24; Van der Horst & McDonald 2008:55).

2.5.5 ARTS AND CULTURE

2.5.5.1 Definition
The Arts and Culture Learning Area Statement deals with a wide range of South African arts and cultural practices. Arts and Culture are an essential part of life, incorporating the spiritual, material, academic and emotive characteristics of human efforts within society.
Culture articulates itself through the arts and ways of living, behaviour patterns, traditions, knowledge and faith practices. Cultures are not unchanging – they have histories and backgrounds, and they alter, particularly when they are in acquaintance with other cultures.

The attitude with regard to Arts in this Learning Area Statement shifts from a broad experience concerning numerous art forms within varied cultural contexts towards a growing depth of knowledge and skill by the 8th and 9th Grade. The reliability of distinct art forms and the importance of combined learning experiences are identified. The Learning Area Statement seeks to establish a sense of balance between expanding general knowledge about Arts and Culture, and exact knowledge and skills in each of the art forms (DoE 2002b:24-25; Van der Horst & McDonald 2008:55-56).

2.5.5.2 Outcomes

- **Creating, Interpreting and Presenting:** The learner is capable of making, understanding and presenting work in each of the art forms
- **Reflecting:** The learner is able to ponder analytically on artistic and cultural processes, products and forms in past and present perspectives
- **Participating and Collaborating:** The learner is able to express individual and group involvement in Arts and Culture activities
- **Expressing and Communicating:** The learner is able to evaluate and use numerous forms of communication and articulation in Arts and Culture (DoE 2002b:24-25; van der Horst & McDonald 2008:55-56).

2.5.6 **LIFE ORIENTATION**

2.5.6.1 **Definition**

The concept Life Orientation encapsulates the core of what this Learning Area Statement aims to accomplish. It shows and organises learners for life and its
prospects. Life Orientation specifically prepares learners for significant and successful living in a swiftly changing and transforming world.

The Life Orientation Learning Area Statement develops skills, knowledge, morals and approaches that give power to learners to make enlightened decisions and take suitable actions concerning:

- Health promotion
- Social development
- Personal development
- Physical development and movement
- Orientation to the world of work

Collectively, these five focus areas of the Life Orientation Learning Area Statement concentrate on human and environmental rights summarised in the Constitution (DoE 2002b:26; Van der Horst & McDonald 2008:56).

2.5.6.2 Outcomes

- **Health Promotion:** The learner is able to make informed choices concerning personal, community and environmental health
- **Social Development:** The learner is capable of showing comprehension of and dedication to constitutional rights and responsibilities and demonstrating a conception of varied cultures and religions
- **Personal Development:** The learner is able to make use of acquired life skills to accomplish and develop personal potential to react constructively to difficulties in his or her world
- **Physical Development and Movement:** The learner is capable of revealing a comprehension of, and taking part in activities that encourage movement and physical growth
- **Orientation to the World of Work:** The learner is able to make educated choices regarding future study and vocation options (DoE 2002b:26; Van der Horst 2008:57).
2.5.7 ECONOMIC AND MANAGEMENT SCIENCES

2.5.7.1 Definition

The Economic and Management Sciences Learning Area Statement comprises the study of private, public or communal use of diverse kinds of resources in fulfilling people’s requirements and desires, while reflecting analytically on the effect of resource misuse and abuse has on the environment and people.

Specifically, the Economic and Management Science Learning Area Statement is concerned with:

- The character, progressions and production of goods and facilities
- The South African financial system and socio-economic organisations in various countries
- Investment and economic administration and organisation skills, either for private, communal or shared ownership
- Entrepreneurial skills and knowledge needed to handle and manage human lives and environments (DoE 2002b:27; Van der Horst 2008:57).

2.5.7.2 Outcomes

- **Knowledge and Understanding of the Economic Cycle:** The learner is competent enough to show knowledge and awareness of sustainable growth, reconstruction and progress, and reflect analytically on connected procedures and practices

- **Managerial, Consumer and Financial Knowledge and Skills:** The learner can exhibit knowledge and the capability to apply a range of executive, consumer and monetary skills

- **Entrepreneurial Knowledge and Skills:** The learner can demonstrate entrepreneurial knowledge, capabilities and outlooks (DoE 2002b:27; Van der Horst & McDonald 2008:57).
2.5.8 TECHNOLOGY

2.5.8.1 Definition
Technology has been present all through history as an activity in which people use a grouping of knowledge, skills and accessible supplies to develop inputs to meet their daily requirements and desires. Some of these solutions are in the form of goods while other solutions entail an amalgamation of products to make structures.

People have needs and wants. Answers and solutions to these are developed by means of activities that merge knowledge, skills and accessible resources. However knowledge, skills and resources used are constantly changing because of increasing advancements in technology. Today's cultures and the technologies they use are multifaceted and varied. Financial and environmental issues and a vast array of attitudes and morals need to be taken into consideration when creating technological solutions. Technology is therefore defined as:

The use of knowledge, skills and resources to meet people’s needs and wants by developing practical solutions to problems while considering social and environmental factors (DoE 2002b:28).

2.5.8.2 Outcomes

- **Technological Processes and Skills:** The learner can apply technological procedures and skills morally, fairly and conscientiously using suitable information and communication technologies

- **Technological Knowledge and Understanding:** The learner is capable of grasping and putting into use the applicable technological knowledge morally and dependably

- **Technology, Society and Environment:** The learner is able to show a comprehension of the interrelationships between Science, Technology, Society and the surroundings over a certain period of time (DoE 2002:28; Van der Horst & McDonald 2008:58).
2.6 A DETAILED DISCUSSION OF THE ARTS AND CULTURE LEARNING AREA IN OUTCOMES-BASED EDUCATION

2.6.1 DEFINITION
The Arts and Culture Learning Area deals with a broad range of arts and cultural customs and traditions in South Africa. Arts and Culture is a significant part of everyday life, and includes the spiritual, material, academic and emotive parts of human experiences within our people. Culture communicates itself by means of our ways of living, activities, manners, traditions, customs, knowledge and faith systems. Cultures are not unchanging - they have pasts and backgrounds, and they alter and vary, particularly when they are in contact with other cultures.

What makes this Learning Area so special is that it gives numerous opportunities to develop, support and help increase the originality, imagination and creativeness of people. The most important objective of the Learning Area in the GET band is to offer a broad education in Arts and Culture for each and every learner in South Africa. In previous times in South Africa, teaching and schooling in Arts and Culture was only available to certain, select learners. The majority of learners were not offered this opportunity (DoE 2003:9).

According to the Department of Education’s “Revised National Curriculum Statement Grades R – 9 (Schools): Arts and Culture”, the approach towards culture in this Learning Area Statement encourages learners to:

- Move from being passive inheritors of culture to being active participants in it
- Reflect creatively on art, performances and cultural events
- Identify the connections between artworks and culture
- Understand the geographical, economic, social and gendered contexts in which Arts and Culture emerge
- Identify the links between cultural practice, power and cultural dominance
- Analyse the effects of time and culture and the Arts
• Understand how the Arts express, extend and challenge culture in unique ways (DoE 2002c:5).

The attitude concerning the Arts in this Learning Area Statement shifts from being a wide experience of numerous art forms within different cultural contexts, towards a deeper understanding and mastery of knowledge and skill. There is recognition of both the reliability of diverse art forms and the significance of combined learning experiences. The Learning Area Statement endeavours to promote a sense of balance and stability between acquiring a general understanding concerning Arts and Culture, and developing detailed knowledge and capabilities in each of the art forms (DoE 2002c:5).

The Arts and Culture Learning Area Statement seeks to encompass equally:

• A diversity of African and various other classical Arts and Culture practices – this will make learners aware of the importance of traditions and other customs
• Original, developing Arts and Culture Practices – this makes opportunities available for learners to develop comprehensive, original, modern, South African demonstrations and representations, and also to understand the trends and styles from the rest of the world (DoE 2002c:6).

The Arts and Culture Learning Area adds to a holistic education for all South African scholars. This is made possible and accomplished by making opportunities available for learners to:

• Develop a healthy self-concept (how learners see themselves)
• Work collaboratively and as individuals
• Acknowledge and develop an understanding of South Africa’s rich and diverse cultures and heritage
• Develop practical skills within the various art forms
• Respect human value and dignity
• Develop lifelong learning skills in preparation for further education and work (DoE 2002c:6).

2.6.2 THE CONTEXT IN WHICH THE ARTS AND CULTURE LEARNING AREA IS TAUGHT

The Learning Area:
• Provides experiences for the learners in dance, drama, music, visual arts, craft, design, media and communication, arts management, arts technology and heritage
• Develops creative, innovative, productive individuals as responsible citizens in line with the values of democracy according to the Constitution of South Africa
• Provides access to Arts and Culture education for all learners as part of redressing historical imbalances
• Develops an awareness of national culture to promote nation-building
• Provides opportunities to develop usable skills, knowledge, attitudes and values in Arts and Culture that can prepare learners for life, living, and lifelong learning
• Develops understanding of the arts as symbolic language (DoE 2002c:5).

To deal with the inheritance of cultural bigotry, prejudice and narrow-mindedness and to equip our learners for what is yet to come, learners have to encounter, comprehend and assert the variety of South African traditions and customs. One of the consequences of previous inequalities in South African society is the dominance of global cultures and the feeble attempts at expansion and encouragement of local arts and culture. Learners have to comprehend the importance of their own culture (DoE 2003:19).
2.6.3 **LEARNING OUTCOMES**

There are four Learning Outcomes (LO's), comprising of the following spheres:

- **Learning Outcome 1: Creating, Interpreting and Presenting:** The learner will be able to create, interpret and present work in each of the art forms.

- The learner needs a wide exposure to and applied experience of Arts and Culture, and the steady and continuing attainment of knowledge, skills, values and attitudes to portray and follow Arts pursuits. The Learning Outcome is wide, and assists individual partiality and liking. It gives learners scope to involve themselves in numerous ways as artists, performers, producers, directors, designers and/or composers.

- **Learning Outcome 2: Reflecting:** The learner will be able to reflect critically on artistic and cultural processes, products and styles in past and present contexts.

- The learner should gain knowledge and an understanding of the history of the Arts, ideas, culture and tradition. The manner in which various societal and ethnic groups take part in and express significance through the Arts will be discovered and explored.

- **Learning Outcome 3: Participating and Collaborating:** The learner will be able to demonstrate personal and intrapersonal skills through individual and group participation in Arts and Culture activities.

- This puts importance on social and individual maturity – the capacity to work independently and in partnership in Arts pursuits towards encouraging healing and nation-building.

- **Learning Outcome 4: Expressing and Communicating:** The learner will be able to analyse and use multiple forms of communication and expression in Arts and Culture.
• This requires that the learner develops the ability to read and make use of fine distinctions in cultural expression. In addition, it is also concerned with types of communication media and the effect that these have on various people and cultures (DoE 2003:21-22).

The Learning Outcomes are skills based and explain and illustrate the knowledge, skills and principles that learners ought to be acquainted with, exhibit and be able to do. The Assessment Standards explain the level at which learners ought to show their accomplishment of the Learning Outcomes.

2.6.4 THE ARTS AND CULTURE LEARNING AREA CURRICULUM PER GRADE

2.6.4.1 Grade R

Learning Outcome 1: Creating, Interpreting and Presenting

Assessment standards

We know this when the learner accomplishes the following:

• Dance
  o Through play, co-ordinates simple gross and fine motor movements, including crossing the mid-line
  o Draws on play, fantasy and imagination to explore a wide variety of movement words, rhythms and changes in tempo
  o Participates in simple dances based on formations and patterns

• Drama
  o Uses voice and movement spontaneously when playing creative drama games
  o Participates in make-believe situations based on imagination, fantasy and life experiences

• Music
  o Sings and moves creatively to children’s rhymes available in own environment
o Responds in movement to a variety of rhythms and changes in tempo. Sounds, songs and stories are used

- Visual Arts
  o Freely creates images of own world in various media
  o Uses play and fantasy in two-dimensional and three-dimensional work
  o Explores and experiments with a wide variety of art materials, techniques (including waste materials), and colour in a spontaneous and creative way
  o Uses and co-ordinates motor skills in practical work and play (e.g. appropriate handling of scissors, glue applicators, paintbrush and drawing instruments).

**Learning Outcome 2: Reflecting**

**Assessment standards**

We will know this when the learner accomplishes the following:

- **Dance**
  o Talks about own dancing using action words

- **Drama**
  o Thinks about and shows how people and animals move
  o Uses concrete objects to represent other objects in dramatic play

- **Music**
  o Imitates a variety of natural sounds in own environment
  o Distinguishes between a talking voice and a singing voice

- **Visual Arts**
  o Talks about, shares and tells stories about own artwork with others.
Learning Outcome 3: Participating and Collaborating

Assessment standards

We know this when the learner accomplishes the following:

- Dance
  - Responds to movement instructions that cover space without bumping or hurting others when moving forwards and backwards
- Drama
  - Participates in drama games - takes turns, waits for signals, responds to cues, and shares space
  - Begins to develop empathy by assuming a variety of familiar roles
- Music
  - Brings songs from home and shares them with others
- Visual Arts
  - Demonstrates active involvement in individual and group art-making activities and an ability to share art-making equipment.

Learning Outcome 4: Expressing and Communicating

Assessment standards

We know this when the learner accomplishes the following:

- Dance
  - Expresses ideas and stories creatively through movement activities that are guided but open-ended
- Drama
  - Conveys feelings and ideas through facial expression and gesture.
  - Creates sound effects to accompany stories told by the teacher
- Music
  - Listens and moves creatively to music, stories, songs and sounds
- Visual Arts

2.6.4.2 Grade 1

Learning Outcome 1: Creating, Interpreting and Presenting

Assessment standards

We know this when the learner accomplishes the following:

- **Dance**
  - Builds own movement vocabulary
  - Demonstrates in movement an understanding of numbers and simple geometric shapes such as circles, lines, angles and squares

- **Drama**
  - Participates in simple dialogue and action sequences based on familiar experiences in own family or community
  - Responds through drama to stimuli in games and stories, including making up endings to stories presented by the teacher

- **Music**
  - Claps and stamps number rhythms and rhymes in tempo
  - Keeps a steady pulse while accompanying a song
  - Sings number and letter songs and rhymes
  - Sings tunes rhythmically and at varying tempi and loudness

- **Visual Arts**
  - Engages in creative art processes
  - Discovers simple geometric shapes such as circles, lines, triangles and squares, and combines and arranges them in patterns
Learning Outcome 2: Reflecting

Assessment standards

We will know this when the learner accomplishes the following:

- **Dance**
  - Responds to fantasy ideas through movement
- **Drama**
  - Uses imaginary objects in dramatic play
  - Begins to see differences between self and the role being played
- **Music**
  - Experiments with different sounds to accompany fables and stories as sound effects
  - Differentiates between high and low, long and short, loud and soft sounds
- **Visual Arts**
  - Explains what is being conveyed in own art and what the learner thinks is conveyed in others’ artworks
- **Composite**
  - Interprets words, poems, stories and ideas through play, fantasy and the imagination.

Learning Outcome 3: Participating and Collaborating

Assessment standards

We know this when the learner accomplishes the following:

- **Dance**
  - Responds to images through movement, adhering to control commands and signals such as ‘stop’, ‘start’, ‘freeze’, ‘hand control’, ‘no bumping’ and ‘find a space’
- **Drama**
  - Demonstrates ability to take on a role in drama - teacher stimulated
Participates in drama exercises that focus on safety, trust and acceptance of others’ needs

• Music
  o Participates in musical call and response games and activities
  o Plays rhythm, clapping, skipping and singing games in pairs

• Visual Arts
  o Participates in art activities in terms of choice and organisation of materials, with attention to safety and responsible behaviour in the work space

• Composite
  o Makes decisions and choices, and follows instructions in art activities

Learning Outcome 4: Expressing and Communicating

Assessment standards

We know this when the learner accomplishes the following:

• Dance
  o Explores vowel and consonant sounds and numbers as well as fantasies through movement and movement-games

• Drama
  o Explores the shape, weight and feel of words and sounds in creative drama games
  o Portrays characters and objects from stories using body shapes and sounds

• Music
  o Uses own imagination and fantasy stories to create sounds

• Visual Arts
  o Uses imagination and fantasy to play with and explore shapes, forms, lines, colours and patterns

2.6.4.3 Grade 2

Learning Outcome 1: Creating, Interpreting and Presenting

Assessment standards

We know this when the learner accomplishes the following:

- **Dance**
  o Accurately demonstrates the eight basic locomotor movements (walk, run, skip, hop, leap, jump, gallop, slide), while travelling forward, sideward, backward, diagonally and turning
  o Recognises and explores opposites found in the immediate environment (e.g. makes large and small shapes, high and low shapes with the body)
  o Learns and performs simple dance steps from dances in the immediate environment

- **Drama**
  o Plays at being characters and objects in stories based on local events or told by the teacher
  o Directed by the teacher, uses themes or topics from the environment in dramatic play

- **Music**
  o Demonstrates fundamental pulse and echoes rhythms from the immediate environment using body percussion, instrumental percussion and movement
  o Sings songs found in the immediate environment

- **Visual Arts**
  o Explores the immediate environment using the elementary functions of line, shape, colour and contrast in two-dimensional and three-dimensional work
Identifies and uses patterns found in the immediate environment, using various materials in organised sequences and in combination

- Composite
  - Responds to stories, games, pictures, poetry and cultural experiences from the immediate environment as stimuli for representation in any art form.

**Learning Outcome 2: Reflecting**

**Assessment standards**

We will know this when the learner accomplishes the following:

- **Dance**
  - Shares opinions about the place, performers and content of dances the learner has seen

- **Drama**
  - Expresses and describes feelings in response to a drama, story or event
  - Differentiates between different characters in a story and their point of view

- **Music**
  - Identifies and sings songs from different situations and talks about them (e.g. working, skipping, and game songs)
  - Listens to and responds in movement to walking, running and hopping notes in songs from the immediate environment

- **Visual Arts**
  - Discusses and offers opinions on own and others’ artworks, artefacts and crafts found in the immediate environment

- **Composite**
  - Describes some features of an event, celebration or festival in the immediate environment.
Learning Outcome 3: Participating and Collaborating

Assessment standards

We know this when the learner accomplishes the following:

- Dance
  - Moves freely and with ease through space both inside and outside, while responding to mutually agreed upon physical, verbal and sound signals
- Drama
  - Works with a partner in role, and switches roles in teacher-directed dramatic play
  - Uses events and experiences from own life as a basis for dramatic play
- Music
  - Echoes a rhythm by body percussion or by playing on a percussion instrument to accompany songs sung together
- Visual Arts
  - Shows confident involvement in planning collective artworks
- Composite
  - Listens to and shares different and similar cultural experiences
  - Displays appropriate audience behaviour while viewing performances and exhibitions

Learning Outcome 4: Expressing and Communicating

Assessment standards

We know this when the learner accomplishes the following:

- Dance
  - Explores movement characteristics of animals, people, machines and nature
• Drama
  o Imitates everyday activities in simple mime
  o Uses puppets, animated stones, mealie cobs or other objects in dramatic play to express own ideas and feelings
• Music
  o Imitates natural and mechanical sounds to create sound effects
• Visual Arts
  o Explores, experiences and creatively communicates patterns and textures found in the immediate and built environment
• Composite
  o Talks about what the learner has seen and heard in own environment that has been of significance to self. (http://wced.wcape.gov.za: 2002c).

2.6.4.4 Grade 3

Learning Outcome 1: Creating, Interpreting and Presenting

Assessment standards

We know this when the learner accomplishes the following:

• Dance
  o In preparing the body, shows the ability to maintain good posture when sitting and standing
  o Lands softly and safely from jumps, hops and leaps by articulating (toe-heel-bend) the feet and bending the knees
  o Explores a variety of movements, opposites and contexts to compose movement sentences
• Drama
  o Performs simple relaxation exercises for warming up and cooling down
  o Uses skills of observation, imitation and exaggeration to create character and mood in dramatic play and exercises
• Music
  o Demonstrates the difference between running notes, walking notes, skipping notes, and ascending and descending order of notes
  o Sings songs and makes music to express a variety of ideas, feelings and moods
• Visual Arts
  o Creates artworks which demonstrate the translation of own ideas, feelings and perceptions into two-dimensional and three-dimensional work using appropriate and available materials
  o Shares and displays work.

**Learning Outcome 2: Reflecting**

**Assessment standards**

We will know this when the learner accomplishes the following:

• Dance
  o Identifies how feelings and moods are expressed through the body and face, the use of energy and the choice of movement
• Drama
  o Talks about what the learner likes or does not like about dramas, advertisements, radio programmes, videos or films
  o Talks about stories and dramas seen or heard and makes connections with familiar situations
• Music
  o Explains how tempo, duration and dynamics have been used in songs and music to express feelings and moods
  o Listens to and graphically represents walking, running and hopping notes in terms of low, middle and high pitch
• Visual Arts
Uses basic art terminology to explain how content, line, colour and shape are used to express feelings and moods in compositions

Learning Outcome 3: Participating and Collaborating

Assessment standards

We know this when the learner accomplishes the following:

- Dance
  - Explores, selects and links movements that express feelings and moods into movement sentences to contribute towards a class dance
- Drama
  - Works with others when exploring situations in role
  - Participates in drama exercises based on listening, responding, initiating or concentrating
- Music
  - Sings songs, rounds and canons in a choir to express feelings and moods
  - Walks, runs, skips and sways to the pulse of the songs fellow learners are singing and the music they are listening to
- Visual Arts
  - Identifies and plans collective artwork which shows problem solving, negotiation of conflict and enjoyment
- Composite
  - Works alone and with a partner, respecting feelings of others.

Learning Outcome 4: Expressing and Communicating

Assessment standards

We know this when the learner accomplishes the following:
• Dance
  o Uses different ways of moving to express the same ideas, feelings or moods
  o Interprets images, sounds, and textures through movement

• Drama
  o Uses the voice, gesture and body shape to express feelings and thoughts
  o Participates in drama exercises that focus on sensory perception and association

• Music
  o Uses tempo, repetition and dynamics to create mood and evoke feelings through music

• Visual Arts
  o Experiments with colour, line, texture, tone, shape and space in various media in two dimensions and three dimensions, to express mood, feelings and ideas (http://wced.wcape.gov.za: 2002d).

2.6.4.5 Grade 4

Learning Outcome 1: Creating, Interpreting and Presenting

Assessment standards

We know this when the learner accomplishes the following:

• Dance
  o In preparing the body, follows a teacher-directed warm-up and skill-developing ritual, with attention to safe use of the body
  o Uses cans, stones, newspapers, materials, chairs, balls and a large variety of objects/props to improvise and compose movement sequences

• Drama
  o Performs simple teacher-directed relaxation and breathing exercises when warming up and cooling down
• Uses the voice and body imaginatively in drama exercises and games
• Makes use of hand or costume props, puppets, masks or other external resources to tell stories and portray characters

• Music
  • Uses voice, body and found or made instruments to explore sounds and silence related to walking, running, and skipping note values, in order to explore rhythms and to create sound pictures
  • Composes and presents a short rhythmic pattern that has crotchets, crotchet rests, minims and minim rests through body percussion
  • Makes in various tone colours, a simple wind instruments such as a Kazoo or Tshikona/Dinaka pipes, or percussion instruments such as shakers
  • Creates and presents melodies using voice and found and natural instruments to demonstrate difference in pitch and note values

• Visual Arts
  • Makes masks and crafts, artefacts, costumes, collages or puppets using natural, waste or found materials
  • Makes and shares artworks

• Composite
  • Makes a puppet and uses it to create a puppet show with music and movement.

**Learning Outcome 2: Reflecting**

**Assessment standards**

We will know this when the learner accomplishes the following:

• Dance
- Uses appropriate vocabulary to describe own dances made in class or dances from own community to do with use of space, costume, music and props

Drama
- Uses simple drama terms to respond to classroom drama, reflecting on own contribution to drama and listening to the comments and ideas of others

Music
- Recognises crotchet and minim note values and rests in a short melody
- Recognises time signatures such as four-four and three-four
- Listens to and identifies musical instruments in terms of appearance, name, how sound is produced, timbre and general pitch classification (high-low)

Visual Arts
- Responds to and discusses images, designs and craft objects used in popular culture, pictures and photographs in terms of content, line, shape, form, colour, texture, space and materials used, using appropriate terminology.

Learning Outcome 3: Participating and Collaborating

Assessment standards
We know this when the learner accomplishes the following:

- Dance
  - Works creatively in dance with props, costumes, found and natural objects and instruments, alone and in groups
  - Sensitively uses the concept of personal (own) and general (shared) space in dance explorations
- Drama
• Collaborates in imaginative use of simple props as stimulus material, showing how the same object can represent different things and different moods
• Draws on and develops own and others’ ideas when planning and devising dramas

- Music
  • Sings and/or plays canons, rounds and two-part songs with other learners, using natural, manufactured and found instruments
  • Plays simple wind instruments such as a Kazoo or Tshikona/Dinaka pipes or percussion instruments such as shakers in harmony with others

- Visual Arts
  • Collaborates with others to plan the making and use of masks, crafts, artefacts, costumes, collages or puppets using natural, waste or found materials with due regard to environmental concerns

**Learning Outcome 4: Expressing and Communicating**

**Assessment standards**

We know this when the learner accomplishes the following:

- Dance
  • Explores the many ways that parts of the body can move individually and in combination
  • Experiments with combining voice and body in sound and movement

- Drama
  • Explores the use of expressive mime to convey ideas and feelings

- Music
  • Uses voice, body, percussion, natural, found or made instruments to accompany stories, dances and songs
o Uses sounds in a free rhythm to build up sound pictures to accompany stories or dances

- **Visual Arts**
  o Makes masks, crafts, artefacts, costumes, collages or puppets to use in a presentation

### 2.6.4.6 Grade 5

**Learning Outcome 1: Creating, Interpreting and Presenting**

**Assessment standards**

We know this when the learner accomplishes the following:

- **Dance**
  o In preparing the body, follows a warm-up ritual that develops coordination and control
  o Improvises and creates dance sequences that use the concept of contrast, while making clear transitions from one movement or shape to another
  o Improvises and creates dance sequences
  o Learns and performs steps of an indigenous and/or contemporary dance from South African culture with attention to detail

- **Drama**
  o Performs simple teacher-directed relaxation, breathing and resonance exercises when warming up and cooling down
  o Responds to aural, oral, visual, tactile and kinaesthetic stimuli in dramatic games and exercises
  o Uses sensory detail and emotional expression in dramatic activities such as simple mime showing weight, size and shape
• Music
  o Demonstrates concentration and accurate listening through recognising, repeating and creating rhythms and poly-rhythms, using movement, body percussion and natural instruments
  o Composes and presents a short rhythmic pattern that has crotchets, crotchet rests, minims, minim rests, quavers and quaver rests through body percussion
  o Improvises and creates music phrases that use repetition, accent, call and response
  o Sings songs in long (3/4) and normal (3/8) triplet

• Visual Arts
  o Designs and creates artworks and craft works which explore the use of natural and geometric shapes and forms in two and three dimensions, in observational work, pattern making and design, and in simple craft objects
  o Displays work in the classroom

**Learning Outcome 2: Reflecting**

**Assessment standards**

We will know this when the learner accomplishes the following:

• Dance
  o Takes an active role in a class discussion about interpretations and reactions to a dance seen live or on television; pays attention to the use of design elements, the purpose and the style of the dance
  o Identifies and describes the many kinds of dances in South Africa

• Drama
  o Reflects on drama (television, radio, community or classroom)

• Music
  o Recognises the letter names of notes on lines and in spaces on a treble staff and their difference in pitch
o Recognises crotchet, minim and quaver note values and rests in a short melody
o Recognises and describes the different timbres of voices in choral music
o Listens to a variety of selected songs and identifies the genre (e.g. Blues, Pop, Kwaito, Classical, Traditional, Free-Kiba, Opera, Musicals, Malombo, Kwassa-Kwassa, Techno, Soukous), and offers opinion on the style

• Visual Arts
  o Differentiates between various art forms such as drawing, painting, architecture, sculpture, design, craftwork, and graphic media
  o Responds to images and craft objects used in popular culture, pictures and photographs in terms of purpose, content, form, contrast and meaning.

Learning Outcome 3: Participating and Collaborating

Assessment standards

We know this when the learner accomplishes the following:

• Dance
  o Demonstrates partner skills such as copying, leading, following and mirroring in movement
  o Works with various partners experimenting with ‘question and answer’ and ‘meeting and parting’ movement phrases

• Drama
  o Shows a developing level of confidence and ability to focus in drama exercises based on concentration, sensory perception and spatial awareness
  o Adopts and maintains a role, and is able to answer questions in role using appropriate language and gesture

• Music
• Sings and/or plays an instrument in a group with appropriate rhythm, pitch and dynamics in any genre of music
• Combines a number of melorhythm instruments (drums, marimba) to create textural blend

Visual Arts
• Selects a project, plans it in a group and takes the necessary action

Composite
• Shows spontaneity and a creative attitude in art activities.

Learning Outcome 4: Expressing and Communicating

Assessment standards

We know this when the learner accomplishes the following:

• Dance
  • Dances in different places (e.g. inside and outside, in the classroom, on stage, on wood, concrete, grass or mud), and describes how dance is affected by space and the physical environments

• Drama
  • Dramatises social, cultural or environmental issues through the use of different drama techniques such as tableaux, verbal dynamic sequences or role-plays

• Music
  • Identifies and sings songs from different societies, cultures and contexts, that seem to communicate the same idea
  • Uses own compositions of poetry and song to draw attention to current social and environmental issues
  • Communicates a musical intention using the interface of pitch-based harmony (mellophony) instruments

• Visual Arts
Shows and explains the use of colour, pattern, design, signs and symbols in own home, in various cultures, and in the built environment (http://wced.wcape.gov.za: 2002f).

2.6.4.7 Grade 6

Learning Outcome 1: Creating, Interpreting and Presenting

Assessment standards

We know this when the learner accomplishes the following:

- **Dance**
  - In preparing the body, demonstrates increasing skill and understanding of warming up
  - Improvises and creates dance sequences
  - Learns, interprets and performs dances from South African culture with competence and appropriate style

- **Drama**
  - Performs simple relaxation, breathing, resonance, pitch and articulation exercises when warming up and cooling down the voice and body
  - Uses African stories to develop dramas

- **Music**
  - Focuses on music from a variety of South African forms

- **Visual Arts**
  - Transforms visual information into structured compositions based on individually selected, real or imagined situations in South Africa, using available materials and appropriate techniques in both two-dimensional and three-dimensional work

- **Composite**
  - Illustrates/interprets African tales through puppetry
Uses dramatic devices, visual illustrations, movement and sound to tell jokes, tall stories, lies, fantasies or absurd tales to explore realities in South Africa.

Learning Outcome 2: Reflecting

Assessment standards

We will know this when the learner accomplishes the following:

- **Dance**
  - Researches the historical background of dances done by their elders in terms of social or cultural contexts, purpose and unique characteristics

- **Drama**
  - Finds out about different types of drama in the country and makes connections between some of them in terms of origins and similarities

- **Music**
  - Listens to and discusses the use of repetition as an organising principle in African music
  - Selects a repertoire of songs that are used in various cultural environments, describes what cultural events they are drawn from, explains what the message of the lyrical content is and what the songs are used for

- **Visual Arts**
  - Identifies the main purposes and design features of artworks in the home, the community and public places in terms of theme, subject and scale

- **Composite**
  - Explores and discusses own concept of culture
Learning Outcome 3: Participating and Collaborating

Assessment standards

We know this when the learner accomplishes the following:

- **Dance**
  - Works co-operatively with partners, improvising and composing dance sequences
  - Shares opinions with other learners about dances from various cultures in a supportive and constructive way

- **Drama**
  - Extends and develops given snippets of dialogue with a partner, showing ability to ‘feed off’ and respond to partner’s ideas
  - Assumes both leader and follower roles willingly in dramatic activities

- **Music**
  - Sings and/or plays in a group - canons, rounds and two-part songs from at least three cultural traditions of South Africa

- **Visual Arts**
  - Shares resources, choice of materials and negotiates choice of subject matter in a group project with other learners

- **Composite**
  - Shows respect for and acknowledgement of the work of others.
  - Participates in a performance as an audience member
  - Expresses own personal sense of identity and uniqueness in any art form.
Learning Outcome 4: Expressing and Communicating

Assessment standards

We know this when the learner accomplishes the following:

- Dance and Music
  - Finds out about, tries out and explains a song-dance ritual (e.g. snake dance, rain dance, wedding dance, circle dance, reed dance, stick dance), referring to its purpose and structure - patterns, repetition and sequence

- Drama
  - Dramatises a cultural ritual (religious ceremony or social celebration), showing the use of the elements of drama (e.g. patterns, repetition, sequence)
  - Explains the importance of this ritual for the people who participate in it

- Music
  - Researches, creates and presents music that conveys and suggests the symbolism of ritual

- Visual Arts
  - Demonstrates and describes the use of various artefacts in cultural rituals
  - Researches murals in the community as a form of visual communication ([http://wced.wcape.gov.za: 2002g](http://wced.wcape.gov.za: 2002g)).

2.6.4.8 Grade 7

Learning Outcome 1: Creating, Interpreting and Presenting

Assessment standards

We know this when the learner accomplishes the following:

- Dance
- In preparing the body, applies safe dance practice and healthy use of the body
- Improvises to explore choreographic design concept
- Creates and presents dance sequences that focus on and challenge, amongst others, human rights issues such as social and cultural attitudes towards dance, and attitudes towards gender and disability in dance

- Drama
  - Follows a teacher-directed warm-up routine
  - Uses exploration of human rights issues in South Africa as a basis for group improvisations

- Music
  - Forms rhythmic sentences combining and mixing different drumming techniques and percussion patterns
  - Improvises and creates music phrases using concepts such as mood, form and contrast
  - Reads and sings or plays the scales and simple melodies in G Major
  - Composes music, songs or jingles about human rights issues or to accompany a performance or presentation about human rights

- Visual Arts
  - Creates art, craft or design works commenting on human rights issues
  - With guidance, selects, prepares and mounts own art-works from their individual portfolio for class presentation.
Learning Outcome 2: Reflecting

Assessment standards

We will know this when the learner accomplishes the following:

- **Composite**
  - Finds out about a South African artist of the past or present, from any art form, and reports to the class
  - Explains the need for conservation of a country’s indigenous knowledge systems, heritage artefacts in museums, galleries, theatres, cultural sites and natural heritage sites

- **Dance**
  - Researches a traditional dance in the community from people, books or videos and presents it to the class
  - Displays observation skills by describing components of dances seen in South Africa, their similarities and differences in terms of movement style, purpose, and use of dancers, costumes and music

- **Drama**
  - Recognises and identifies elements of drama (e.g. processions, chants) in forms of cultural and social expression over time (e.g. opening ceremonies, rock concerts, gladiators, state events, sport)

- **Music**
  - Classifies African instruments in terms of ideophones, chordophones, membranophones, aerophones, and Western instruments according to strings, woodwinds, brass and percussion
  - Discusses any of the following types of instrument in terms of the shape, materials used, type of sound, how it is played, what makes the sound

- **Visual Arts**
  - Gathers information from field trips, excursions, interviews or other sources to analyse the contribution of art, craft and design to everyday life and to South Africa’s heritage.
Learning Outcome 3: Participating and Collaborating

Assessment standards

We know this when the learner accomplishes the following:

- Composite
  - Transforms personal experiences into forms of expression
  - Uses art activities to express individual and collective identities
- Dance
  - Demonstrates trust-building partner skills through various activities
- Drama
  - Works sensitively in a group to explore and develop scenes around personal and social issues, experimenting with alternative solutions to problems
  - Demonstrates ability to listen attentively, respond to cues, speak and move in harmony in a group-dramatised choral verse or dramatised prose item
- Music
  - Sings and/or plays South African songs from various cultures with appropriate rhythm, tempo and dynamics
  - Creates suitable melodic or non-melodic accompaniment for any South African folk song, anthem or melody
- Visual Arts
  - Discusses, plans and shares resources with others in producing a collective artwork or presentation to promote nation-building in South Africa.

Learning Outcome 4: Expressing and Communicating

Assessment standards

We know this when the learner accomplishes the following:
• **Dance**
  - Investigates and presents the purpose and function of different forms of traditional, classical and indigenous dance available in South Africa that reflect aspects of national heritage

• **Drama**
  - Researches and presents an example of indigenous performance, such as praise poetry or folk tales

• **Music**
  - Investigates and explains the purpose, function and role of different instruments used in indigenous, traditional or Western forms of music in South Africa

• **Visual Arts**
  - Investigates and presents the origins, purpose and role of signs, national or traditional symbols, statues, heritage sites, body adornment, artworks, dress or architecture (http://wced.wcape.gov.za: 2002g).

### 2.6.5 **TEACHING AND LEARNING IN ARTS AND CULTURE**

At the centre of the Learning Area are the ‘arts’ and ‘cultures’ themselves, their adaptability, flexibility and their interrelationships. Educating in this Learning Area should develop the extent and depth of the Learning Outcomes, allowing learners to discover and experience the vibrancy and diversity of arts and culture forms and customs within the country.

The manner in which teaching in Arts and Culture is approached must be explorative, investigational and supportive. A positive and secure atmosphere must be established in order for learners to investigate and communicate their ideas, suggestions and notions within an environment of honesty and positive responses. Learning Programmes ought to give liberty to the learners to bring new ideas and concepts, and the style of teaching by the educator should be adjusted and modified to help and assist learners who have various ways of learning.
Another vital factor in this Learning Area is the idea of the *spiral development* of abilities and notions in the arts. It is required that fundamental and important skills in the various forms of art are distinguished and expanded increasingly from grade to grade and phase to phase. When dealing with dance and music, learning by means of repetition and imitation is imperative, because performance abilities are, to an extent, attained through constant rehearsing and repetition.

Understanding and comprehending both the integrity of distinct art forms and the importance of incorporated learning experiences, the approach towards *arts* in this specific learning area is to find a sense of balance between developing general knowledge about arts and culture, and detailed knowledge and abilities in each of the art forms. It is the right of every learner to be exposed to and experience dance, drama, music, visual arts, craft and design (DoE 2003:25-26).

A Learning Programme should deal with:

- A variety of African and other classical arts and culture practices – this will existing traditions and conventions
- Innovative, emergent arts and culture practices – this will open up avenues for learners to develop inclusive, original, contemporary, South African cultural expression, and to engage with trends in the rest of the world (DoE 2003:26)

A Learning Programme should include learning activities that:

- Nurture and develop creativity, innovation and resourcefulness
- Create opportunities to develop *generic* knowledge about arts and culture, and *specific* knowledge and skills in each of the art forms
- Provide opportunities to work across and within art forms
- Allow opportunities to explore personal, social, cultural and collective identities
- Redress imbalances caused by cultural intolerance
• Empower learners to respond to and participate in the arts, enter the world of work, and/or engage in recreational arts activities
• Cater for learners who wish to choose electives that would prepare them for further study in FET
• Collaborate with other learning areas (DoE 2003:26).

2.6.6 **THE ARTS AND CULTURE LEARNING AREA IN THE FOUNDATION PHASE (GRADE R-3)**

In the Foundation Phase, the organising standards are organised around ‘the learner in his or her own and local environment’ (DoE 2002:14). The learner acquires creative skills by experiencing real and make-believe encounters, coming from the self to using ideas from the direct surrounding. Throughout this Phase, importance is put on the learner discovering significant forms for the expression of notions, emotions and dispositions.

2.6.6.1 **Learning Programme Integration**

In the Foundation Phase, the Arts and Culture Learning Area must be incorporated into all three Learning Programmes, namely Numeracy, Literacy and Life Skills. There are numerous Assessment Standards which are suitable for each of the Learning Programmes. A few ideas are given in the Revised National Curriculum Statement Grades R-9 (Schools) – Arts and Culture (2002):

- **Numeracy Learning Programme:**
  - Visual Arts – shape, form, pattern
  - Music – symbols, values, rhythm, time, duration
  - Dance – shape, counting, numbers, quantities, distance, size, levels, direction.

- **Literacy Learning Programme:**
  - Drama – speech, sensory perception, oral skills, storytelling, characterisation
- **Visual Arts** – visual and spatial perception, patterning, fine motor co-ordination, shape, colour, contrast, form, texture
- **Music** – listening, voice, aural perception
- **Dance** – vocabulary, gross motor co-ordination.

- **Life Skills Learning Programme:**
  - **Dance** – gross motor co-ordination, physical control, balance, stamina, strength, imagination, spatial perception, kinaesthetic perception
  - **Drama** – fantasy, imagination, role-play, concentration, focus, interpersonal and intrapersonal skills
  - **Culture** – religion, ceremonies, identity, familiar domestic routines
  - **Music** – gross and fine motor co-ordination, imagination, rhythm, music skills, aural perception
  - **Visual Arts** – visual-spatial perception, craft skills, fine motor co-ordination, expression, imagination (DoE 2002c:14).

### 2.6.7 THE ARTS AND CULTURE LEARNING AREA IN THE INTERMEDIATE PHASE (GRADE 4-6)

In the Intermediate Phase, innovative exploration and expression are broadened to make use of sources from the natural, physical, social and cultural surroundings.

The learner’s attentiveness to broader societal and cultural settings is extended. The learner is encouraged to work with natural and found materials. The groundwork is established for developing art skills and learning. The learner deals with the many design constituents and literacies that are essential to the Arts.

A language for deliberating artworks and cultural customs is attained. The learner discovers and examines artworks established on South Africa’s history and present-day, recognising and reacting to cultural variety (DoE 2002c:40).
2.6.8 THE ARTS AND CULTURE LEARNING AREA IN THE SENIOR PHASE
(GRADE 7-9)
In the Senior Phase, organising factors include national, African and worldwide matters and interests. These notions are not restricted to a specific grade and remain applicable across Phases.

The learner connects creatively and contemplatively, by means of artistic pursuits and analytical reflecting, with human rights, traditions and nation-building. The learner is confronted with matters such as popular culture, forms of prejudice and bias, the associations among local and international authorities, power relationships within the Arts and in society, as well as the effect of mass media and technologies on the Arts and art business.

This Phase also establishes the foundation for job prospects for the learner to concentrate on his or her favourite area or areas. At the exit point of the General Education and Training Band (GET Band), the learner is expected to arrange, perform, display and promote artworks independently in one or more of the art forms (DoE 2002c:68).

2.6.9 ORGANISING FRAMEWORKS
An organising framework has been created to smooth the progress of consistency, alignment, development and progress. It considers and contemplates the relationship between Learning Outcomes and Assessment Standards across grades, phases, and art types. The structure is centred on acquiring developmental skills, age correctness and very important aspects such as cultural variety, human rights, ecological matters, nation-building, traditions and the power relations involving international and global cultures (DoE 2002:9).

The organising principles for each Phase are shown below:

- Foundation Phase: The learner in his or her own environment:
  - Grade R – Fantasy and play
- Grade 1 – Imagination in the learner and the learner’s environment
- Grade 2 – Immediate environment
- Grade 3 – Ideas, feelings and moods (DoE 2002c: 9-10).

- Intermediate Phase: Physical, natural, social and cultural environments:
  - Grade 4 – Natural and physical resources
  - Grade 5 – Sensory perception and literacies (cultural, visual, spatial, aural, oral, kinaesthetic)
  - Grade 6 – Wider social, historical and cultural environment (DoE 2002c:11).

- Senior Phase – National, African and global environment:
  - Grade 7 – Human rights, heritage, nation-building, marginalised cultures (DoE 2002c:11).

### 2.7 OUTCOMES-BASED EDUCATION IN THE CLASSROOM

South African classes are multifaceted and intricate. Much is expected from educators – they are required to teach problem solving and analytical reasoning, and apply co-operative learning as a teaching plan. This requires knowledgeable classroom administration. It is vital to remember that managing one’s classroom and teaching are directly connected. It is not possible to part the administrative and teaching aspects of teaching. Each teaching approach that is selected by a teacher has an effect on both learner and educator because of its task requirements (Van der Horst & McDonald 2008:79).

#### 2.7.1 THE OUTCOMES-BASED CLASSROOM

Educators and their learners spend the greater part of their day in the classroom, and because of this, preparation and planning needs to be done to create an atmosphere that encourages effective teaching and learning. The ambience in an
OBE classroom should be far more relaxed and casual than the traditional classroom, and the manner in which the OBE classroom is set out is also different and far more informal. Stress is placed on collaborative and group learning, so the layout of desks and furniture needs to be set out in order to encourage and enhance this, and also for the educator to move around the class freely in order to relate with the groups and individual learners. Preferably, the furniture is organised in groups, and the teaching materials are put on shelves where both learner and educator can retrieve them easily (http://www.kzneducation.gov.za: 2002b).

Educators must support their students to help run the classroom by:

- Negotiating the arrangement of the classroom at the beginning of the year
- Letting learners decide on the duties that have to be done in managing the classroom
- Asking learners to compile a duty roster to manage this process (http://www.kzneducation.gov.za: 2002b).

2.7.2 HOW LEARNERS ARE ARRANGED FOR LEARNING

There are various ways in which learners can be arranged in the classroom. This is done to best suit the teaching and learning activity. The classroom arrangement will often change. This is because sometimes particular outcomes are achieved best through whole-class gathering, while at other times, outcomes get better results through group work or individual work (http://www.kzneducation.gov.za: 2002:b).

2.7.3 WHY LEARNERS SHOULD TAKE PART IN GROUP WORK AND COLLABORATIVE LEARNING

The basic and essential belief is that persons learn best when they are actively taking part in a learning method. The more practical and hands-on practice that the learners have in the classroom, and the more their participation, the more efficient and successful is their learning. It is important that learners comprehend
co-operative learning and how they can be part of a co-operative learning practice. This can be accomplished through some of the following:

- Learners lead and manage their groups
- Learners explain concepts to their peers
- Learners translate the vocabulary and help each other understand the language
- Learners make posters and notices for the classroom

Through working together in groups, learners are responsible for not only themselves, but also for others. This teaches them about accountability, dependability and community building (http://www.kzneduction.gov.za: 2002b).

2.7.4 MANAGING GROUP WORK
Groups can be arranged according to the following:

- A group leader co-ordinates the group (aspects like understanding, clarification and completion are group responsibilities – not the leader’s responsibility)
- A scribe writes down the ideas, decisions and plans
- A timekeeper ensures optimal use of time
- A checker checks that all the instruction have been followed
- A reporter reports to the whole class at the end (http://www.kzneduction.gov.za: 2002b).

2.7.5 MANAGING LEARNERS’ BEHAVIOUR
The most constructive and creative classrooms are those where learners:

- Are highly motivated and interested in their work
- Feel safe, cared for and loved
- Are constantly busy
• Have a mutual respect for each other (http://www.kzneducation.gov.za: 2002b).

Learners are most productive and creative when the learning environment they are in is calm, happy and safe. To establish this kind of atmosphere, stability, harmony and control needs to exist. Instead of acting as a dictator by chastising and reprimanding learners, the teacher and learners together need to agree upon a code of conduct right from the start of the academic year to make the classroom as positive as it can be. It is the responsibility of the educator to stick to and apply the rules of the classroom constantly for it to work (http://www.kzneducation.gov.za: 2002b).

2.7.6 THE ROLE OF THE SENIOR MANAGEMENT TEAM (SMT)

The Senior Management Team (SMT) in schools has an important role in guiding and advising teachers to improve their skills in:

• Setting up OBE classrooms (layout, visual stimulation et cetera)
• Organising learners
• Understanding group work and co-operative learning methodology
• Classroom discipline
• Organising time in the classroom

2.7.7 THE ROLE OF THE EDUCATOR

The Norms and Standards Document of the National Department of Education (1998:53-54) stipulates precisely what is expected from educators. They are set out below:

• Learning Mediator

  The educator encourages and mediates learning in a style that is perceptive and aware of the various requirements of learners, creates classrooms that have a calm and positive atmosphere, and embraces the differences between learners. The educator also has a good
comprehension of all aspects pertaining to teaching from a South African perspective (Van der Horst & McDonald 2008:80).

- **Interpreter and Designer of Learning Programmes and Materials**
  The educator will understand and translate learning curricula, create new lessons, pinpoint the needs for a certain aspect of learning, and choose and arrange appropriate written and visual materials for learning. The educator also decides on the order, arrangement and rate at which the work must be covered and completed (Van der Horst & McDonald 2008:80).

- **Leader, Administrator and Manager**
  Educators guide and administer the learning process in the classroom, perform organisational obligations and actively take part in making decisions regarding school concerns. These tasks will be executed in ways that are democratic and that encourage and assist both learners and co-workers (Van der Horst & McDonald 2008:80).

- **Scholar, Researcher and Lifelong Learner**
  It is the responsibility of all educators to continually be growing and developing in many different areas – personal, educational, work-related and professional. They must continually be studying and researching in the Learning Areas in which they specialise, and in additional, connected subjects (Van der Horst & McDonald 2008:80).

- **Community, Citizenship and Pastoral Role**
  Educators must practice and encourage a significant, dedicated and moral approach to creating a feeling of esteem and dependability towards one another, one that supports the constitution of South Africa, and promotes democratic principles and practices in schools and society. Within the school, educators should develop a positive and safe learning atmosphere
for their learners and react to any additional requirements of their learners and co-workers. They should also develop good relationships with the parents of their learners in order to establish a support-base (Van der Horst & McDonald 2008:80).

- **Learning Area / Subject / Discipline / Phase Specialist**
  Educators must be knowledgeable about the “skills, values, principles, method and procedures” that are applicable to the branch of learning, subject, learning area and/or phase of study. They ought to be aware of different methods of teaching that can be applied at different times in different situations, and also be required to be well-versed in the subject matter of the Learning Areas they teach (Van der Horst & McDonald 2008:80).

- **Assessor**
  Educators must evaluate their learners’ proficiency and competency on a continual basis. It is also important that they be able to adapt and change their teaching methods to suit the needs of their learners. Assessment ought to be balanced, putting importance on continuous evaluation (Van der Horst & McDonald 2008:80).

### 2.7.8 HOW KNOWLEDGE OF INSTRUCTION AND CLASSROOM MANAGEMENT HELPS TO CREATE AN EFFECTIVE OUTCOMES-BASED EDUCATOR

The important points below come from studies and research dealing with classroom management:

- Instructional and classroom administration is linked to the Learning Outcomes (LO’s). The issues that come from inadequate classroom management and the advantages of good classroom organisation can’t be detached from learning. If all of the learners in a classroom are working
together and studying efficiently, then that specific class will be very unproblematic and quite simple to control (Van der Horst & McDonald 2008:107).

- Although conversing and talking is a very important component in learning-focussed classrooms, much of what is important for a successful learning environment is communicated through unspoken attitudes and behaviour. The manner in which educators act and conduct themselves conveys meaning and messages to their students. Educators’ attitudes and behaviour in the classroom can convey to the learners whether or not they place importance on learning and education. We do not need to say anything for our learners to read us, and the same applies to them – they can communicate to and with us without saying a single word. The manner in which they behave or misbehave in class is a clear indicator of whether or not they are learning productively or unproductively. If we can read them as individuals and not as a class in general, we will then be able to understand their needs and react to their needs (Van der Horst & McDonald 2008:107).

- Successfully managing and running the classroom makes learners understand themselves better. The manner in which educators deal with and work together with their learners gives learners the opportunity to grasp and measure their ability and potential to make choices, be accountable and play a role in the cooperation and unity of the classroom (Van der Horst & McDonald 2008:107).

2.7.8.1 Teaching Self-Responsibility
The classroom environment offers learners a diversity of prospects, but as mentioned before, this depends on the educator’s approach to teaching and the atmosphere that he or she sets. Self-accountability and liability means setting goals for oneself and working at accomplishing these specific aims. If educators
want their students to develop self-responsibility, then chances need to be presented for them to do so. This can be done in a number of ways:

- Learners shouldn’t be given total freedom in deciding upon Learning Outcomes, but it is nevertheless a good idea to let learners identify areas which they would like to improve on. “Choice equals empowerment” (Van der Horst & McDonald 2008:108).

- Discussions can assist learners to simplify and explain their goals. Once a learner has identified his or her goals, it is important for the educator to decide how comprehensible these are by asking, for example, “What will you be able to do when you have achieved your goal?” (Devising of Outcomes) (Van der Horst & McDonald 2008:108).

- At the same time that they are helping learners to clarify their aims and goals, educators might talk about the strategy needed in order to accomplish these. Learners should be encouraged to work out their own plan. Asking “how” questions are key here (Van der Horst & McDonald 2008:108).

- Learners should be encouraged to provide weekly accounts of their goal-connected activities, to estimate the amount of growth and improvement that they have made in the week that has past, and to consider what they can do differently to get closer to reaching their objective (Van der Horst & McDonald 2008:108).

- Learners experiencing problems in this regard need to reassured that this is all a part of the course of action (Van der Horst & McDonald 2008:108).
2.7.8.2 Managing Cultural Diversity

The way educators deal with classroom misbehaviour and how they supervise lessons displays their values and principles. The manner in which a learner behaves in class and what their values are, are determined to an extent by their cultural upbringing. At times disagreements can occur between educator and learner value systems, and this can result in problems in the classroom. The following points offer some strategies that educators can implement in such cases:

- **Know Your Learners**
  Reading and studying about cultures and cultural diversity is not enough. Although it can provide good quality information there is nothing better than getting to know your learners, their families and the communities from which they come. Educators should therefore try to spend time with their learners and their families outside of school times, to find out about their occupations, religions, hobbies, and the histories and heritage of their ethnic group. Educator could also organise social gatherings as opportunities to get to know parents in a relaxed atmosphere. Woolfolk (1995) suggests that educators who teach in the Foundation Phase meet the parents beforehand, instead of having to wait until a problem or issue arises (Woolfolk 1995 in Van der Horst & McDonald 2008). In the classroom environment, educators should observe how learners interact with one another, in small and large group settings. Another way in which to get to know learners better is in a non-teaching setting, such as playing rugby or swimming (Van der Horst & McDonald 2008:109).

- **Respect Your Learners**
  It is vital that educators respect their learners’ weaknesses and strengths. Young children’s self-worth is boosted when they receive acceptance from people they admire and look up to. A way to help learners take pride in themselves and their cultural heritage is by using examples of how their respective cultural groups have made an impact on music, art or science.
The differences between cultures should be highlighted in a way that encourages learners to value the unique contributions that each culture makes in a multicultural society like South Africa. (Van der Horst & McDonald 2008:109).

- **Teach Your Learners**
  The most important, yet often forgotten, goal for educators is to teach their learners to read, write, talk, process, think and create in perspective. Very often, these important goals have taken the back-seat in favour of the learner acquiring ‘basic knowledge’. Frequently, educators teach learners words, sounds and concepts, but the gist and meaning of them comes ‘later’. OBE stresses the importance of comprehending knowledge, acquiring and developing general and life skills and forming mind-sets and value systems. Educators also have the responsibility of teaching their learners about manners, how to be courteous, and general classroom etiquette – keeping quiet while the teacher or a fellow learner is speaking, how to offer help, and how to be sensitive to the feelings and needs of other learners (Van der Horst & McDonald 2008:110).

### 2.8 THE ADVANTAGES OF OUTCOMES-BASED EDUCATION

#### 2.8.1 SUCCESSFUL TEACHING

In outcomes-based education, teaching can be highly successful and advantageous if educators plan their lessons thoroughly, organise their lessons with definite results and goals in mind, and provide a clear, well set-out list of instructions for the learners to follow. The Learning Outcome in question should steer the choice of subject matter and the appropriate teaching-learning strategies (Van der Horst & McDonald 2008:13).
2.8.2 **LEARNERS KNOW WHAT IS EXPECTED**
In outcomes-based education, the goals and aims of the lessons are clearly set-out. The learners also know how their work is going to be assessed and evaluated, which makes them feel responsible of themselves and their work. Self-evaluation is a vital part of the OBE philosophy (Van der Horst & McDonald 2008:13).

2.8.3 **MONITORING OF PROGRESS**
Because of the emphasis on continuous evaluation the educator has ample opportunity to keep a detailed record of each learners’ progress and can readily identify areas where they might need help (Van der Horst & McDonald 2008:13).

2.8.4 **PERMANENT FAILURE IS PREVENTED**
Learners who have not accomplished or attained the expected standards are given additional chances to do so (McGhan 1994:71 in Van der Horst & McDonald 2008:14).

2.8.5 **ROTE LEARNING IS DECREASED**
Comprehending and grasping of a specific subject or topic is more imperative than simply being able to replicate knowledge (McGhan 1994:71 in Van der Horst & McDonald 2008:14).

2.8.6 **POINTLESS FACTS ARE ELIMINATED**
The most important facts and aspects of the Learning Areas or subjects are taught, whereas miscellaneous, disconnected facts are omitted. Emphasis is placed on understanding within a given context (McGhan 1994:71 in Van der Horst & McDonald 2008:14).

2.8.7 **ABILITY TO DEAL WITH SITUATIONS**
OBE gives learners the capacity to understand and deal with every-day situations such as those that they will come across once leaving school. This is because of
the emphasis it places on knowledge, skills and morals (McGhan 1994:71 in Van der Horst & McDonald 2008:14).

2.8.8 **RELEVANCE**
Outcomes-based education puts emphasis on curriculum preparation and design. The standard at which learners grasp and master subjects is more important than the mere recalling of information, thus better preparing learners for more complex forms of learning (www.peaonline.org).

2.8.9 **OUTLINE FOR DECISION-MAKING**
Outcomes and goals guide the syllabus towards the intended end-goals of the learning process. This outline links curriculum goals and the intentions of the Lesson Plans as set out by the educator, and also links classroom experience with the bigger learning experience (www.peaonline.org).

2.8.10 **ACCOUNTABILITY**
Lesson Outcomes offer a definite and precise standard within which to assess whether or not the set goals have been reached (www.peaonline.org).

2.8.11 **ASSESSMENT GUIDELINES**
Outcomes enlighten us about how and what educators need to evaluate in their learners. In the past, learners were considered to be successful or knowledgeable if they could pass a test or exam within a certain amount of time, which calculated their “comprehension” of the topic at hand. OBE puts more importance on performance-based evaluation that assesses the manner in which a learner has mastered an advanced level of knowledge, abilities and attitudes, which lead to expertise and proficiency (www.peaonline.org).

2.8.12 **PROGRAMME EVALUATION**
Outcomes give educators a way in which to measure whether or not curriculum and educational curricula have succeeded in providing learners with the expected knowledge, skills and morals. Every kind of evaluation tests and
answers several questions and serves various needs that gives the educator important information with regards to learners’ progress (www.peaonline.org).

2.9 THE DISADVANTAGES OF OUTCOMES-BASED EDUCATION

2.9.1 OUTCOMES ARE VAGUE
This is a common complaint amongst educators. They feel that the outcomes which the learners are expected to achieve are very imprecise, and are not worded clearly enough to fully comprehend what exactly the learners ought to achieve. Educators also feel that the outcomes are more focussed on emotions and feelings than actual academic contents (Van der Horst & McDonald 2008:15).

2.9.2 PARENTS ARE NOT GIVEN A CHOICE OF OPTIONS
When a government chooses outcomes that involve principles and ways of thinking, it ought to give parents of learners the chance to decide which schooling choice they want for their children. In South Africa, schools are either governmental or private. If a government doesn’t make available a choice of schooling options, then only one choice remains, and that is “to prescribe for government schools carefully described outcomes that reflect the public consensus on what learners should learn. It is very difficult to achieve public consensus in a country as diverse as South Africa” (Van der Horst & McDonald 2008:15). If all members of the various groupings aren't conferred with and if an agreement or compromise isn’t attained, then schooling could become propaganda. Because of the fact that there aren’t many schooling options in South Africa, many parents are starting to consider home-schooling, because they feel that they could give their children principles and morals that the government cannot. Parents have the right to choose what kind of schooling and education they would like their children to be exposed to (Van der Horst & McDonald 2008:16).
2.9.3 LOWERED STANDARDS
Because OBE prescribes minimum outcomes for the successful achievement of standards, its opponents feel that it leads to an inevitable decrease in standards. OBE expects all learners to accomplish the same outcomes, and, as a result of this, standards have to be reduced. It is almost inevitable in such a situation that slower learners will slow down the advancement of the group as a whole. This is detrimental for the more intelligent learners, as they do not have to work hard to achieve good results and they will this quickly lose motivation. OBE needs a balanced evaluation practice in order to be a successful education system. The stronger learners need to aim to reach advanced levels of accomplishment, whilst the less gifted learners should be expected to work to attain the outcomes at the minimum level (Van der Horst & McDonald 2008:16).

2.9.4 THE COST OF OBE
Putting a new education system into practice costs millions of rands. Educators need to be re-educated, the entire curriculum needs to be modified and adjusted, and different evaluation methods need to be created (Van der Horst & McDonald 2008:16).

2.9.5 TOO MANY POLICIES AND GUIDELINES
It is felt that there are far too many documents, statements and instructions at each and every level of our education system, stemming from the Department of Education right down to educator levels. Because of this, there has been, and still exists, extreme uncertainty about what is expected from who and when. There are also many inconsistencies in the documents in the various National Curriculum Statements, particularly the National Curriculum Statement Learning Programme Guidelines and Subject Assessment Guidelines. Educators want only one Curriculum and Assessment Policy for every Learning Area and subject (DoE 2009:7-8).
2.9.6 **ROLE OF SUBJECT GUIDES**

Our present education system depends on Subject Advisors to liaise and mediate between the curriculum statements and how these are interpreted and applied in the classroom. The role of Subject Advisors seems to be different from province to province, and thus there is no consistency. Educators also feel that there are far too few Subject Advisors available in order to provide the necessary assistance. Many of the Subject Advisors are not adequately educated and knowledgeable to be in the position that they are in, and as a result of this, cannot assist educators as efficiently as they ought to. Educators want the roles of Subject Advisors to be made clearer and want to know exactly what support they can expect from their Subject Advisors (DoE 2009:8).

Subject Advisors need to be able to fulfill the functions of:

- Moderating teachers’ plans, assessments and learners’ work
- Mediating the curriculum standards for particular Learning Areas/subjects
- Clarifying the assessment and content/discipline requirements for particular Learning Areas/subjects
- Providing support for appropriate teaching methodologies in line with particular Learning Areas/subjects (DoE 2009:23).

2.9.7 **ADMINISTRATIVE INCONVENIENCES**

Educators are overburdened with the organisational and administrative work that they are expected to complete over and above teaching. OBE requires them to spend hours and hours doing administrative work, but they feel that all of this extra work makes no difference to or improvement in their actual teaching; if anything, it merely complicates the educating process, which should be the main focus. Educators desperately want the administrative requirements to be reduced, so that they can spend more time focusing on their learners and in fact teaching them (DoE 2009:8).
2.9.8 ASSESSMENT
This aspect of OBE has been an issue for educators ever since Curriculum 2005 was implemented into schools. An evaluation policy wasn’t created to help assist the National Curriculum Statement, and this created extra uncertainty in the GET band. Because of this, both educators and parents are highly confused concerning numerous features of evaluation, from ‘progression requirements to performance descriptors’ (DoE 2009:8). Curriculum 2005 encourages a move away from the allocation of marks and percentages, but in their place establishes many confusing evaluation methods, like Common Tasks of Assessment, portfolios and research projects as well as related jargon’ (DoE 2009:8-9). South Africa’s continuous inadequate and inferior performance in examinations and tests has left numerous persons and individuals highly cynical of South Africa’s new national curriculum. Educators and stakeholders want assessment to be made easier, more straightforward and consistent. It is also needed that the quality and reputation of the evaluation methods be improved (DoE 2009:9).

2.9.9 TRANSITION AND OVERLOAD IN THE INTERMEDIATE PHASE
Learners across the country have generally achieved very poor marks in both national and international tests and examinations in Grades 3 and 6. There are numerous reasons for this. Educators put a lot of the blame on the fact that there are far too many subjects in the Intermediate Phase (Grade 4 – Grade 6). The students change from having only 3 Learning Areas in Grade 3 to having 6 Learning Areas in Grade 4. It has also been shown that the majority of provinces initiate English as a subject in Grade 3 instead of Grade 1, as stipulated in the National Curriculum Statement policy. The huge increase in subjects from Grade 3 to Grade 4 (triple the amount of Learning Areas) creates a lot of stress for both learner and educator. It is suggested that the number of Learning Areas in the Intermediate Phase be decreased from nine subjects to six (containing two languages), and that these six subjects should be: Home

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14 Although 5 Learning Areas are shown in the bulleted list on page 30 of this treatise, learners are required to learn two languages, which in effect duplicates the Languages Learning Area and augments the list of Learning Areas from 5 to 6.
Language; First Additional Language; Mathematics; Natural Sciences (including aspects of Technology); Human and Social Science; and General Studies (Creative Arts, Physical Education and Religious and Moral Education) (DoE 2009:65). It has also been recommended that a fourth subject should be established in the Foundation Phase – English as a First Additional Language, as this will emphasise the need to have English in the curriculum as from the beginning of Grade 1 (DoE 2009:9). Given the realities with which learners must later be equipped to deal, the teaching of English as a First Additional Language should be given precedence and suitable textbooks and reading material must be provided. In addition to this, the accessibility of high-quality teaching of African languages has to be bettered (DoE 2009:65-66).

2.9.10 LACK OF TEXTBOOKS IN SCHOOLS

Curriculum 2005 encourages educators to create their own lessons and teaching resources, thus opposing the use of textbooks in schools. According to the Department of Education’s Report of the Task Team for the Review of the Implementation of the National Curriculum Statement in October of 2009, however, both national and international research shows that using a textbook is “the most effective tool to ensure consistency, coverage, appropriate pacing and better quality instruction in implementing a curriculum” (DoE 2009:9). “Textbooks are crucial in supporting the implementation of curriculum. They aid curriculum coverage, and make available the conceptual logic of the subject in question as it progresses through the set field of knowledge to be taught and learnt. They offer a crucial resource for teachers in planning and in gaining access to the appropriate knowledge and skills to teach, at the appropriate level. A reassertion of the importance of (good) textbooks will assist teachers in implementing the curriculum” (DoE 2009:25). Educators feel that it is highly unjust to expect them to develop lessons, which, before Curriculum 2005, was the responsibility of experts (thus, the use of textbooks). A large amount of educators in our country do not have sufficient resources to use in order to create and develop decent quality lessons, and also, the standards of lessons vary from province to province, school to school, and teacher to teacher. Educators have appealed to
reintroduce textbooks into schools, so that quality of education can be standardised in all subjects throughout our country, and that all learners (from Grade 4 through to Grade 12) have their own textbook for every Learning Area or subject (DoE 2009:9).

2.9.11 INADEQUATE EDUCATOR TRAINING
Educators are aware of the fact that they are quite often inadequately trained in various aspects and areas of Curriculum 2005 and that current training strategies are far too general and not in-depth enough. This results in a lot of newly-educated educators not being capable, knowledgeable or skilled enough to be teaching the current curriculum. Educators also feel that all imminent training has to be subject specific, and that “support staff such as school management, subject advisors and district staff also need to be trained and have clarity on their roles and responsibilities” (DoE 2009:10).

2.9.12 PHILOSOPHICAL ISSUES
Some opponents of OBE claim that is is out of place to first describe and explain the outcomes that we expect from our students, particularly before the lessons for the specific Learning Areas have even been planned or set out. Jansen therefore states that “There is a fundamental contradiction in insisting that students use knowledge creatively only to inform them that the desired learning outcomes are already specified” (Jansen 1999:150 in Killen 2007:63). These critics also feel that OBE has unfitting origins, and see it as too behaviourist (Killen 2007:63-64).

2.9.13 METHODOLOGICAL AND RESOURCE CONCERNS
Some educators feel that OBE in South Africa fails because it was put into practice in schools much too quickly, and that teachers were not and are still not being educated and trained for it effectively. These same educators argue that South Africa has inadequate monetary resources to implement OBE correctly and successfully in all of its schools (Killen 2007:64).
2.9.14 SUBJECT MATTER PROBLEMS
When it comes to dealing with the curriculum, outcomes-based education is disapproved of in numerous ways. The first is that Outcomes-Based Education underestimates the importance of syllabus content: insufficient emphasis is given to the actual content of the various Learning Areas. The second criticism is that OBE is teaching the wrong subject matter, and the third critique is that OBE “threatens to atomise and fragment curriculum knowledge [and] overlooks the important cross-curricula and interdisciplinary demands encountered in learning a complex task” (Jansen 1999:152 in Killen 2007:65).

2.10 CONCLUSION TO THIS CHAPTER
In this chapter I have provided a brief overview of South Africa’s current educational policy pertaining to grades R to 9, the so-called GET band, as contained in the RNCS. I have expounded on the education system it promulgates - Outcomes-Based Education – and have briefly described the various Learning Programmes and Learning Areas it proposes. I have given a full account of the prescribed Learning Outcomes and Assessment Standards for the Arts and Culture Learning Area in particular, since it is this Learning Area that has particular relevance to the aim of this treatise, which is to examine systems wherein the benefits of musical learning can be made accessible to all South African children.

By way of comparison, in the forthcoming chapter I shall consider an approach to education that is based on Howard Gardner’s Theory of Multiple Intelligences, and wherein the importance of Musical Intelligence is particularly highlighted. Both I and the reader will then be in a position decide, not only how OBE and the Arts and Culture Learning Area “measure up”, but also whether there is any way in which OBE and its Arts and Culture Learning Area can be considered a substitute for focussed, content-based subject music, traditionally considered indispensable for the training of literate and properly skilled musicians.
CHAPTER 3
MULTIPLE INTELLIGENCES IN THEORY AND PRACTICE

3.1 THE HISTORY AND UNDERLYING PRINCIPLES OF MULTIPLE INTELLIGENCES

Multiple Intelligence Theory was introduced by Harvard psychologist Howard Gardner in his book “Frames of Mind” in 1983. In this book he argued for the recognition of Multiple Intelligences. He sought to develop ideas in cognitive and developmental psychology (Gardner 1983a:9), two areas in which he has a passionate interest. He looked at the organic and developmental roots of cognition and the various cultural differences in “cognitive competence” (Gardner 1983:10). He also wanted to scrutinise educational results and effects of the theory of Multiple Intelligences, as he felt that it was possible to identify various intelligences at an early age and then develop and nurture these intelligences to the maximum. Gardner says that the various intelligences of the individual can be enhanced by designing different learning programmes accordingly. He also wanted to establish whether the various learning methods used to enhance the different intelligences could be said to be universally applicable or whether they needed to be adapted in different cultural contexts. The main aim of his book was therefore to develop an ideal of how “intellectual competences may be fostered in various cultural settings” (Gardner 1983: 10).

The following diagram presents a summary of the differences between traditional perceptions of intelligence and that put forward by Gardner in his Multiple Intelligences Theory of 1983.
Table 3.1. Differences between Traditional Intelligences and Multiple Intelligences
(http://lth3.k.12.il.us/rhampton/mi/mi.html).

<table>
<thead>
<tr>
<th>Traditional view of “Intelligence”</th>
<th>Multiple Intelligences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intelligence can be measured by short-answer tests:</td>
<td>Assessment of an individual’s multiple intelligences can foster learning and problem-</td>
</tr>
<tr>
<td>Stanford-Binet Intelligence Quotient</td>
<td>solving styles. Short answer tests are not used because they do not measure discipline</td>
</tr>
<tr>
<td>Wechsler Intelligence Scale for Children (WISCIV)</td>
<td>mastery or deep understanding. They only measure rote memorization skills and one’s</td>
</tr>
<tr>
<td>Woodstock Johnson test of Cognitive Ability</td>
<td>ability to do well on short answer tests. Some states in America have developed tests</td>
</tr>
<tr>
<td>Scholastic Aptitude Test.</td>
<td>that value process over the final answer, such as PAM (Performance Assessment in Math)</td>
</tr>
<tr>
<td></td>
<td>and PAL (Performance Assessment in Language)</td>
</tr>
<tr>
<td>People are born with a fixed amount of intelligence.</td>
<td>Human beings have all of the intelligences, but each person has a unique combination,</td>
</tr>
<tr>
<td></td>
<td>or profile.</td>
</tr>
<tr>
<td>Intelligence level does not change over a lifetime.</td>
<td>We can all improve each of the intelligences, though some people will improve more</td>
</tr>
<tr>
<td></td>
<td>readily in one intelligence than in others.</td>
</tr>
<tr>
<td>Intelligence consists of ability in logic and language.</td>
<td>There are many more types of intelligence which reflect different ways of interacting</td>
</tr>
<tr>
<td></td>
<td>with the world.</td>
</tr>
<tr>
<td>In traditional practice, teachers teach the same material to everyone.</td>
<td>Multiple intelligences pedagogy implies that teachers teach and assess differently</td>
</tr>
<tr>
<td></td>
<td>based on individual intellectual strengths and weaknesses.</td>
</tr>
<tr>
<td>Teachers teach a topic or “subject”.</td>
<td>Teachers structure learning activities around an issue or question and connect subjects.</td>
</tr>
<tr>
<td></td>
<td>Teachers develop strategies that allow for students to demonstrate multiple ways of</td>
</tr>
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<td></td>
<td>understanding and value their uniqueness.</td>
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As will be further explained and discussed below, the majority of our intelligence is formed by the circumstances and cultural situations in which we grow up. Certain aspects of the intelligences identified by Gardner do appear in conventional Intelligence Quota (IQ) tests. Furthermore, it will be stressed that
multiple intelligences do not appear in isolation. In order to finish a task or project individuals make use of more than one intelligence at a time, thus the intelligences always operate in an integrated manner in real-life situations (Chen 1998:15).

In 1999, Gardner made the following statement about knowledge and intelligence:

> I want my children to understand the world, but not just because the world is fascinating and the human mind is curious. I want them to understand it so that they will be positioned to make it a better place. Knowledge is not the same as morality, but we need to understand if we are to avoid past mistakes and move in productive directions. An important part of that understanding is knowing who we are and what we can do … Ultimately, we must synthesize out understandings for ourselves (Gardner 1999 in Infed http://www.infed.org.).

Gardner disagrees with the conventional way of testing one’s intelligence, also known as IQ (Intelligence Quota). Instead he maintains that human beings are capable of at least eight different ways of understanding and ordering information, and that people all have various ways of exhibiting and showing their individual intelligences. These intelligences, which cannot be tested by orthodox means, are present in everyone, although the ways in which the intelligences are displayed and manifested differ vastly from one person to another. This could be because of hereditary factors, cultural conditioning and the education that one has received. Gardner believes these intelligences can also be gradually achieved, that we can aim to improve our various intelligences. This contrasts with previous beliefs that intelligence cannot be changed or improved upon (Pienaar 2008:30).

According to Gardner, all societies have their own idea of what the “ideal human being” (Gardner 1999b:1) is. The Greeks held someone who was physically strong, had good judgment and an upstanding, moral character as ideal. The Romans held manliness in high esteem, and holy soldiers of the Islam faith were idealised in the Muslim faith. The idea of what intelligence is has changed over
the past hundred years until now, when Western societies put extra emphasis on that of languages and mathematics, and less emphasis on other subjects and topics (Gardner 1999b:1-2).

Western understandings of intelligence may generally be described as follows:

1. The ability to learn or understand from experience; ability to acquire and retain knowledge; mental ability;
2. The ability to respond quickly and successfully to a new situation; use of the faculty of reason in solving problems, directing conduct, etc. effectively;
3. Generally, any degree of keenness of mind, cleverness, shrewdness, etc.

(www.yourdictionary.com/intelligence).

For Gardner, the traditional way in which our cultures define intelligence is far too narrow and limited. He believes we should broaden the way in which intelligence is understood. He has a problem with the manner in which IQ tests are traditionally conducted, since to him there is no sense in taking people out of their natural setting and environment and getting them to perform sporadic tasks that they have not done before. In “Changing Minds” (Gardner 2004:29), he lists four traditional views of intelligence with which he disagrees:

- Intelligence is a single entity
- People are born with a certain amount of intelligence
- It is difficult to alter the amount of our intelligence – it’s “in our genes” so to speak
- Psychologists can tell you how smart you are by administering IQ tests or similar kinds of instruments.

Gardner has set out to make people understand that intelligence is far more than just a single number (i.e., an IQ score), by showing, for example, that what seems to be intelligent behaviour and action in one cultural situation and circumstance may seem senseless and illogical in another cultural setting. In her thesis “Application of Accelerated Learning techniques with Particular Reference to Multiple Intelligences”, Hester Pienaar illustrates this point with reference to
the specific intelligences exhibited by the Bushmen in the Kalahari. In the rough conditions of the desert, they are able to survive, find food and water and raise families. If they had to have their IQ tested, they would more than likely score a zero, due to the fact that they cannot read or write and are totally uneducated when it comes to modern forms of technology. In their environment, however, they are exceptionally intelligent. If we were to place a person from a modern, urban society in the Kalahari, would s/he be able to survive? More than likely, the answer would be no. He or she might have a high IQ in the accepted method of testing, but IQ would mean nothing in this new setting. This point can apply to many different situations, for example, a person who has been trained in music and has a background of music education will have a higher intelligence in this specific area, whereas a person who has never encountered music before will have no knowledge about it, and won’t understand the terminology and descriptions that pertain to music. This doesn’t mean that the non-musical person is ‘stupid’, they have simply not developed any intelligence in this field. Once again, this makes one question the traditional methods and means of testing IQ (Pienaar 2008: 21). To Gardner, intelligence has more do with the ability to solve problems to enable one to cope with issues in life, to create objects or offer a certain duty or service that is important and valuable in any given cultural context (Armstrong 2000:1; Pienaar 2008:31).

Gardner is therefore sceptical of the general inclination in education systems across the world to emphasise mathematics and languages at the cost of all other forms of intelligence. Although he agrees that these two intelligences are very important as school antecedents, they should never be allowed to detract from other important areas of learning. David Feldman, general editor of the book “Building on Children’s Strengths: The Experience of Project Spectrum”, acknowledges that mathematics and the languages are very important in schooling, but points out that there are many other paths that one can follow to becoming a fruitful contributor to society, and that it is also vitally important to nurture skills that will enable children to identify the strengths that will help them to live a full and rich life in society. He also feels that children shouldn’t be forced
to learn the same subjects in the same way. This is because everyone is different and our minds work in different ways (Chen, Krechevsky & Viens 1998:2). There are more ways than one to learn about life and the world. Teachers need to encourage individuality in learning methods. When learners discover the learning techniques that are best suited to them, learning will automatically become far easier and seem more natural (Chen, Krechevsky & Viens 1998:2; Pienaar 2008:5).

Gardner believes it is important for teachers to understand the workings of the human brain, a topic often neglected in educator training. Thus, the methods with which we approach teaching and the means through which we present lessons and classes are vitally important. As educators, we “work and train” (Pienaar 2008:4) the brain, but don’t really understand its complexity. If we were trained to understand the brain better, we would have the upper hand in the manner in which we “educate, teach, develop and nurture the brain” (Pienaar 2008:4). For example, for effective learning to take place it is not only important to use the learning part of the brain, but also the emotional part. It makes no sense to use only one part of the brain when learning – both the right and left hand sides of the brain should be used. In so doing, learners will be led to better understand themselves and their strengths, and how to optimise these (Pienaar 2008:6).

### 3.2 EIGHT CRITERIA FOR POTENTIAL INTELLIGENCES

The question may well be asked how any particular form of intelligence comes to deserve its place in Gardner’s theory of Multiple Intelligences. For Gardner, a potential intelligence has to answer to eight criteria in order to be accepted as such. These criteria are listed below:
- **Potential isolation by brain damage**
  Gardner worked with various individuals at the Boston Veterans Administration who had been in accidents or experienced illnesses that had, as a result, had an effect on specific parts of their brains. These people might have had the part of their brain damaged that controlled Logical-Mathematical Intelligence, and thus found it very difficult to understand the concept of numbers and sums, but they were found to still be fully able to play a musical instrument, to read or to interact with others. Because of this, Gardner reasoned that there existed independent and self-governing brain structures as far as the different forms of intelligence were concerned (Armstrong 2000:3; Gardner 1983a:63).

- **The existence of idiot savants, prodigies, and other exceptional individuals**
  A prodigy is a person who is highly advanced in one (or occasionally, more than one) domain. An idiot savant has an unequalled and exceptionally advanced ability in comparison to his or her other abilities, which are, in turn, very underdeveloped. Thus an idiot savant comes across as retarded. Having individuals with this condition enables us to witness the fact that any one form of human intelligence can operate in isolation from all of the others. In "Multiple Intelligences in the Classroom", Armstrong uses the film *Rain Man* as an example. In this film Dustin Hoffman portrays a character who is a Logical-Mathematical savant. He is capable of working out the most complex of calculations in his head, but has barely any people skills (Intrapersonal Intelligence) and also has a very flawed understanding of his own life and the happenings around him (Interpersonal Intelligence) (Armstrong 2000:3; Gardner 1983a:63-64).

- **An identifiable core operation or set of operations**
  In some ways human intelligence is a neutral potentiality that needs to be stimulated by different kinds of data and central processes (internal or
external) in order to take effect. It is very important to be able to pinpoint these central processes to identify the “neural substrate” (Gardner 1983:64) with which these centres are in fact associated. Gardner compares each specific intelligence to a computer programme. Just as a computer programme needs to be subjected to a group of procedures for it to function, so each intelligence has a set of processes that help it to function at its best. For example, in Bodily-Kinaesthetic Intelligence, the processes involved might incorporate the capability to emulate the bodily movements of others (Armstrong 2000:8; Gardner 1983a:64).

- **A distinctive developmental history, along with a definable set of expert “end-state” performances**

  Each specific intelligence should have a history, recognisable stages of its development. Ordinarily it cannot develop on its own, or in seclusion, unless this occurs in an extraordinary person. Because of this, it is essential for the development of the intelligence in question that educators hone in on circumstances where the specific intelligence has a fundamental position. Intelligences are stimulated by being involved in activities that have some or other cultural outcome, which in turn affect’s the individual’s intellectual growth. Each of these outcomes has their own time of arising in childhood and peaking and declining in adulthood. Armstrong uses the Musical Intelligence of Mozart to further explain this. Musical Intelligence usually arises very early in the life of an individual (if you are gifted in this intelligence) - Mozart was only five years old when his career as a composer began - and many composers continue to compose music until they are relatively old. Thus Musical Intelligence is a form of intelligence that doesn’t seem to decline in old age. But other intelligences could only arise later on in life, or arise early and peak fairly early in life as well, thus declining in old age. This all varies from person to person and from one intelligence to another (Armstrong 2000:3-7; Gardner 1983a:64-65).
• **Support from experimental psychological tasks**

Psychologists have developed techniques and tests that make it possible to argue that certain skills may or may not be displays of the same intelligences. By looking at the results of various psychological tests, we can see how the different intelligences act in isolation from each other. Armstrong 2000 cites the typical example of how someone might do exceptionally well in one area, such as reading, but not do well in another area, such as mathematics, from which we can deduce that Linguistic Intelligence doesn’t correspond or transfer over to Logical-Mathematical Intelligence. Some people may have an ability to remember faces, but not remember words to songs; or someone might be have the ability to solve complex mathematical calculations, but may not be able to spell. These examples show that most abilities are “intelligence-specific” (Armstrong 2000: 8), and that people show different levels of strength in the various forms of intelligence (Armstrong 2000: 8; Gardner 1983a:65).

• **An evolutionary history and evolutionary plausibility**

Specific Intelligences (and, conversely, specific non-intelligences) are characteristics shown not just by human beings, but by all species. The origin of our intelligences goes back millions and millions of years and a particular intelligence is considered more credible when we can identify its predecessor processes. The development and origins of Musical Intelligence, for example, can be traced way back to the origins of ancient musical instruments, or that of Spatial Intelligence to the existence of cave drawings. The various intelligences are also deeply embedded in the advancement of other species. Detailed calculation capabilities, for example, can be found to function in isolated cases in species other than humans, but in the case of humans, these have mostly been developed in a societal context (Armstrong 2000: 7; Gardner 1983a:65).
• **Support from psychometric findings**
  According to Gardner, although traditional methods of testing intelligences aren’t always ideal, they still have a significant amount of authority and reliability and their results should be taken into consideration in order to strengthen the argument for the presence of Multiple Intelligences. An example of how conventional tests also investigate Multiple Intelligences can be found in the Wechsler Intelligence Scale for Children. It involves checking for the presence of Linguistic Intelligence, Logical-Mathematical Intelligence, Spatial Intelligence, and, to a lesser degree, Bodily-Kinaesthetic Intelligence (Armstrong 2000:7). Gardner states that intelligence tests do not actually test what they intend to and miss the intention quite frequently, but despite these negative aspects, the results of these tests do still have an important place in identifying and measuring different forms of intelligence (Armstrong 2000:7-8; Gardner 1983a:66).

• **Susceptibility to encoding in a symbol system**
  Symbol systems such as languages, mathematics, and pictures are vital for communication, efficiency and survival. Symbol systems are used all over the world by people from all walks of life in order to communicate and connect with each other. The word “dog” is in fact simply a set of letters put together, apparently quite at random. Yet to humans (or at least to those humans who have mastered the symbols of the English language) it has come to be understood as something far more than simply a random set of letters. We can connect it to various remembrances, use it to stir up pictures, or use it to communicate with and possibly to manipulate our environment in various ways. We are able to interpret something that is not actually there. The ability of humans to “symbolize” (Armstrong 2000:8) is what separates us from the majority of other animal species. In order to qualify as such, Gardner maintains that each specific intelligence should have its own set of symbols and associations (Armstrong 2000:8; Gardner 1983a:66).
3.3 GARDNER’S EIGHT MULTIPLE INTELLIGENCES

Having applied the above eight criteria in his study of this subject, Gardner continues by identifying the following eight forms of human intelligence:

- Linguistic Intelligence
- Logical-Mathematical Intelligence
- Musical Intelligence
- Spatial Intelligence
- Bodily-Kinaesthetic Intelligence
- Intrapersonal Intelligence
- Interpersonal Intelligence
- Naturalistic Intelligence (http://en.wikipedia.org/wiki/Multiple_intelligences)

3.3.1 LINGUISTIC INTELLIGENCE

This intelligence is one that is viewed as highly important in normal IQ testing. Linguistic Intelligence is the sensitivity to the purpose, meaning and order in which words are used, and the capability to communicate and use words and language in an efficient manner. Individuals who are strong in this Intelligence get pleasure from speaking, articulating words, listening to and observing words. Ways in which Linguistic Intelligence is displayed is through listening, speaking, reading, literature and writing (Ediger 1997:2). It manifests in spoken and written languages. People who have their strength in this area, think in terms of words and express themselves by using words (Armstrong 2000:2). As is the case with all of the intelligences, many variants of Linguistic Intelligence occur. Some people might be very good at being able to learn foreign languages, some might be gifted in writing, and others may be exceptionally good at reading and telling stories.

Career options for individuals who display a high level of Linguistic Intelligence include becoming a writer, speech therapist, philosopher, teacher, lecturer, TV or
radio announcer, politician, librarian or journalist (http://en.wikipedia.org/wiki/Multiple_intelligences).

The ability to use language in order to converse and record, to convey emotions, and to create songs and music with words is what separates humans from other animals. The ability to use words aided our ancestors to progress from tangible to intangible reasoning as they advanced from identifying objects to actually labelling and terming them and referring to objects when they were not in the area or vicinity. Being able to read made it achievable to learn about things, items, places, methods and theories that had not yet been personally encountered, and writing enabled correspondence with individuals whom the writer had not met. Thinking in terms of words has enabled humans to recall, examine, solve problems, strategise and make objects (Campbell, Campbell & Dickinson 2004:2).

Linguistic Intelligence is the most extensively studied of all the intelligences and is intertwined with many of the other intelligences. For example, Interpersonal Intelligence, which will be discussed below, is dependent on effective verbal communication. This intelligence gives us an opportunity to convey opinions and understandings derived from the other intelligences. Pienaar reminds us that, although the majority of our thinking is in non-verbal language, it is vital that this thinking ultimately be expressed verbally. It is justifiable to say then, that Linguistic Intelligence is not a means unto itself - it doesn’t reach its full potential unless it is employed in the service of the other intelligences.

Language is central to the formation of societies, so developing this particular intelligence is very important. Children are most responsive to Linguistic Intelligences during their first years, and thus parents need to encourage their children to use, grasp and understand language to as advanced a level as possible (Pienaar 2008: 37). Even deaf children make up their own signs in order to communicate what they are feeling and what they want.
Language originates in the jabberings of babies. These jabberings then become single words, which in turn become words put together to form phrases. Eventually, these short phrases turn into simple sentences and then more complex sentences. Gardner emphasizes that, although languages are very important, and although people who are strong in this intelligence have an advantage over those who aren’t strong in this intelligence, it shouldn’t ever be thought of as more significant or more essential than the other intelligences (Gardner 1983a:79-80; Pienaar 2008:37).

The following “checklist” is characteristic of a person with a high level of Linguistic Intelligence:

- Writes better than average for his/her age
- Spins tall tales or tells jokes and stories
- Has a good memory for names, places, dates, or trivia
- Enjoys word games
- Enjoys reading books
- Spells words accurately (or if preschool, does developmental spelling that is advanced for age)
- Appreciates nonsense rhymes, puns, tongue twisters
- Enjoys listening to the spoken word (stories, commentary on the radio, talking books)
- Has a good vocabulary for age
- Communicates to others in a highly verbal way (Armstrong 2000:24)
- Listens and responds to the sound, rhythm, colour, and variety of the spoken word
- Imitates sounds, language, reading, and the writing of others
- Learns through listening, reading, writing, and discussing
- Listens effectively, comprehends, paraphrases, interprets, remembers and analyses what has been said
- Reads effectively, comprehends, summarizes, interprets or explains, and remembers what has been read; enjoys one or more literary genres
• Speaks effectively to a variety of audiences for a variety of purposes, and knows how to speak simply, eloquently, persuasively, or passionately at appropriate times
• Writes effectively: understands and applies rules of grammar, spelling, punctuation, and uses a broad vocabulary
• Exhibits ability to learn other languages
• Uses listening, speaking, writing, and reading to remember, communicate, discuss, explain, persuade, create knowledge, construct meaning, and reflect upon language itself
• Strives to enhance his or her own language usage
• Demonstrates interest in journalism, poetry, storytelling, debate, speaking, writing, or editing
• Creates new linguistic forms or original works of writing or oral communication. (Campbell, Campbell & Dickinson 2004:4).

Other ways to improve Linguistic Intelligence include:
• Looking at different kinds of dictionaries
• Reading plays and poetry out loud
• Writing a story for a book or newsletter
• Keeping a journal
• Reading from books written by or for new readers
• Using a tape recorder or Dictaphone to record stories and write them down
• Reading together, i.e. choral reading
• Reading out loud to each other
• Reading a section, then explaining what you’ve read
• Reading a piece with different emotional tones or viewpoints – one angry, one happy
• Trading tall tales, attending story telling events and workshops
• Exploring and developing the love of words, i.e., meanings of words, origin of words and idioms, names. Researching your own name. 
(http://literacyworks.org).

3.3.2 LOGICAL-MATHEMATICAL INTELLIGENCE
This intelligence reflects the ability to use numbers and to rationalize. Those whose strength is in Logical-Mathematical Intelligence are able to do complicated and complex mathematical processes and sums, understand logical systems, and also have a good grasp and understanding of science (Armstrong 2000: 2). They are also generally very logical and think in a rather non-emotional manner. Scientists, statisticians, mathematicians, computer programmers, auditors, accountants, technicians, economists and engineers are strongest in this area (Campbell, Campbell & Dickinson 2004:xx). Gardner describes this as the ability to “detect patterns, reason deductively and think logically” (http://www.infed.org; http://en.wikipedia.org/wiki/Multiple_intelligences).

Jean Piaget was a French scientist who identified “The stages of cognitive development” as infancy, preschool, childhood and adolescence. According to Piaget, each stage of a child’s life signifies the child’s comprehension of reality during that particular period (http://www.en.wikipedia.org/wiki/Jean_Piaget). Piaget’s ideal of “cognitive development” (Campbell, Campbell & Dickinson 2004:32), which is the progression from basic actions to that of complex activities, was quite likely a depiction of progression in one specific area, which would be that of Logical-Mathematical Intelligence. Logical Intelligence, explained by Piaget, starts with the way in which a young child (from about the age of 18 months) plays with and relates to objects in his or her surroundings and is able to determine various objects and recognize them. This ability to group objects into shape, colour and size develops rapidly as they mature and grow up, and these simple actions enable the child to think logically, understand and reason different topics. This then progresses to encountering numbers, then changing from utilizing tangible and actual entities to that of conceptual and intangible figures. This then advances to influencing and controlling theoretical
reports and their connections and affiliations. Piaget believed that Logical-
Mathematical Intelligence originates with the physical actions of holding and
handling items and objects. Eventually, however, the process of “holding” and
“handling” can become an abstract, mental process only, which in turn leads to a
programmed pattern of thought. This means that the child will be capable of
contemplating and making deductions about these various items without having
to be in contact with them physically. The act of manipulating and controlling
them will then become an unconscious and instinctive act, and something that
does not have to be thought about or ‘rehearsed’ (Campbell, Campbell &

Those who are gifted in the area of Logical-Mathematical Intelligence usually
develop in this area on their own, at times even devoid of tuition from teachers.
Mathematicians are creators of patterns, and easily deal with lengthy sequences
of reasoning. It is said that many mathematicians often have a feeling of what the
solution to the problem will be, and then work it out logically and step by step.
Mathematicians place great worth on their insight and instinct, but fall back on
their practical and ordered methods to complete the final steps in solving
mathematical problems.

Science and mathematics are also closely connected. Scientists need
mathematics because the logical, ordered manner of solving mathematical
problems is the same way in which scientific equations are worked out and
solved. The scientist sees mathematics as a crucial means for developing and
explaining paradigms and hypotheses. Scientific and mathematical abilities quite
often exist in the same person, but the motivation and intentions are different in
the mathematician and the scientist. The scientist aspires to explain and
understand nature, where the mathematician seeks to explain and understand
theoretical and intangible subjects. Scientists sometimes have the opinion that
mathematicians are not in touch with reality and tend to grasp at ideals and
models instead of what is real. Mathematics and science are highly regarded in
Western societies, and those who are gifted in these intelligences are considered as more advanced than the average person.

Logic is an age-old branch of learning in Western culture and is related to reasoning, convincing, verifying, characterizing, and uniformity. Before logic was recognized as an official branch of learning, individuals were deducing in constant and reliable manners. However, it is Aristotle who is remembered as one of the first to formulate and recognise specific laws and rules regarding this way of thinking. There are many types of logic, the two most general of them being deductive and inductive logic. Deduction results from the “stated premises” (Campbell, Campbell & Dickinson 2004:35) whilst inductive logic’s assumption is “developed step-by-step from the particular to the general” (Campbell, Campbell & Dickinson 2004:35). Those who are gifted in Logical-Mathematical Intelligence are also strong in the area of logic (Campbell, Campbell & Dickinson 2004:35-39; Gardner 1983a:135-164).

The following “checklist” is characteristic of a person with a high level of Logical-Mathematical Intelligence:

- Asks a lot of questions about how things work
- Enjoys working or playing with numbers
- Enjoys math class (or if preschool, enjoys counting and doing other things with numbers)
- Find mathematics and computers interesting (or if no exposure to computers, enjoys other science games)
- Enjoys playing chess, checkers, or other strategy games
- Enjoys putting things in categories, hierarchies, or other logical patterns
- Likes to do experiments in science class or in free play
- Shows interest in science-related subjects
- Can easily compute numbers in his/her head
- Mathematics and/or science are favourite subjects in school
- Enjoys playing games or solving brainteasers that require logical thinking
• Likes to set up little “what if” experiments (for example, “What if I double the amount of water I give to my rosebush every week?”)
• Searches for patterns, regularities, or logical sequences in things
• Believes that almost everything has a rational explanation
• Sometimes thinks in clear, abstract, wordless and imageless concepts
• Likes finding logical flaws in things that people say and do at home and work
• Perceives objects and their functions in the environment
• Is familiar with the concepts of quantity, time, and cause and effect
• Uses abstract symbols to represent concrete objects and concepts
• Demonstrates skill at logical-problem solving
• Uses diverse mathematical skills such as estimating, calculating algorithms, interpreting statistics, and visually representing information in graphic form
• Uses technology to solve mathematical problems
• Expresses interest in careers such as accounting, computer technology, law, engineering, and chemistry
• Creates new models or perceives new insights in science or mathematics. (Armstrong 2000:13,24; Campbell, Campbell & Dickinson 2004:33).

Logical-Mathematical Intelligence can be improved upon by:
• Using diverse questioning strategies
• Posing open-ended problems
• Applying mathematics to real world situations
• Using concrete objects to demonstrate understanding
• Predicting and verifying logical outcomes
• Discerning patterns and connections in diverse phenomena
• Justifying or verifying logical outcomes
• Providing opportunities for observation and investigation
• Using technology to teach, learn, and extend student understanding
• Connecting mathematical concepts to other subject matter areas
• Arranging cartoons and other pictures in a logical sequence
• Sorting and categorizing word lists
• While reading a story, stopping before the story is finished and predicting what will happen next
• Exploring the origins of words
• Playing games that require critical thinking; for example, picking the one word that doesn’t fit in any given list or set
• Working with scrambled sentences, talking about what happens when the word order is changed
• Making outlines of what you are going to write or of the material you’ve already read
• Writing a headline for a story you’ve just completed
• Looking for patterns in words

(http://literacyworks.org; Campbell, Campbell & Dickinson 2004:34).

3.3.3 MUSICAL INTELLIGENCE

Music Intelligence is the ability to produce, convey and grasp the significance and importance of sound. People who are musical are able to understand and have control over pitch, rhythm, timbre, and with a little talent to take part in musical pursuits and interests, writing and arranging music, singing, or playing an instrument. Other possible career options could be that of a music teacher, piano tuner, music therapist, conductor, disc-jockey, an arranger, sales representative, instrumentalist, orchestral or choral conductor (http://en.wikipedia.org/wiki/Multiple_intelligences).

Music has many different ways of articulating itself. All of the abilities required in conveying music are connected, yet these abilities vary from one another. An individual could have a deep love for music, but may not be able to understand the depth of the complexity of the music the composer has written. The listener has one form of Musical Intelligence and the composer another.
Music is one of the most long-standing and most deep-rooted of the art forms. Music makes use of the individual’s voice and body as instinctive and inherent instruments and as ways and means of communication. As babies in our mother’s wombs we listen to her heart beating, to her voice, to sounds in her environment, and it is these sounds that escort us into the world (Campbell, Campbell & Dickinson 2004:128; Pienaar 2008:46-47). Thus Musical Intelligence is also often the first observable and evident intelligence in the life of a child. From about 2 months of age, babies are capable of recognizing the tone, volume and the melodic manner in which their mother’s voice is formed. In the second year of their lives, children start to experiment with intervals of seconds, thirds (minor and major) and fourths. They start to make up short little songs, which most times are very complicated to notate. These short sections of music consist of recognisable parts as well as spur-of-the-moment melodies. They also begin to copy short segments of songs that they know, such as “Twinkle, twinkle, little star”, “Happy Birthday”, and “Baa baa, black sheep”. As from three to four years of age, children are able to keep to the original melody. From age four to six, children have an intensified response to sound and tone and are able to sing and remember numerous songs, play instruments and dance. For this reason it is very important that a musical atmosphere is encouraged, because this imparts a foundation for musical capability which can manifest later on in their lives. It is quite common for musically talented individuals to come from families that aren’t particularly musical, but whose parents encouraged musical environments and their children’s musical abilities (Campbell, Campbell & Dickinson 2004:129; Gardner 1983a:109; Pienaar 2008:47).

In medieval and Renaissance times, music was regarded as one of the four most important subjects in education, together with geometry, astronomy and arithmetic. Today the situation is quite different. Now music is often one of the first subjects to be excluded from school curricula and syllabi, where mathematics, languages and the sciences are inevitably considered more important. The irony is that music is the very subject that is needed to help improve learners’ performance in the above-mentioned subjects. This is because
music tuition aids in the improvement of “spatial reasoning and spatial-temporal skills that are key in understanding and using mathematical ideas and concepts” (Campbell, Campbell & Dickinson 2004:130). At schools in the United States of America, where musical training is included in their curriculum, the students take part in playing instruments and are involved in various ensembles such as choirs and orchestras. According to research, the scholars in these schools achieved some of the highest academic marks in the country, despite the fact that many of these students came from underprivileged and under-educated homes and backgrounds (Campbell, Campbell & Dickinson 2004:120-130).

Musical capabilities, and particularly pitch perception, are positioned in the right side of the brain. The response of the brain toward music would appear to be instinctive, with deep-rooted genetic origins, and investigation has shown that babies as young as 12 weeks old are able to react to particular songs. Music doesn’t just stimulate the right hand side of the brain – music is also able to bring about sentimental and emotional reactions in that of the listener, which in turn causes the limbic system to respond (this is the part of the brain which is in charge of storing long-standing memories). There is much proof and substantiation that music affects brain waves and physical conditions. For example, in the 1960’s Lozanov developed a teaching method called Suggestopedia, according to which music composed between 1600 and 1825 was used (Lozanov believed that music created during this period the ideal frequencies and resonances for his purposes) to synchronize the performance of the brain and the body, to enhance the alpha-levels in the brain, and thus to result in enhanced recollection and improved memory (Pienaar 2008:45).

Encounters with music could incorporate discovering sound by means of singing, moving, dancing, listening and performing on musical instruments. The types of music that should be used in core curricula should include that of different countries, styles and genres and time periods, such as folk, rock, classical, pop, opera, jazz, and baroque. Music and emotions go hand-in-hand, so one without the other is simply not possible, and because of this fact, using music in a
classroom can establish and set a constructive and encouraging atmosphere for the enhancement and encouragement of learning. Music can be utilized to create various moods, such as tension, sadness, happiness, joy, or humour, which the teacher could effectively use in a variety of classroom settings and subjects areas (Campbell, Campbell & Dickinson 2004:129).

Campbell, Campbell and Dickinson agree that it is very difficult to pinpoint scholars with Musical Intelligence, because this form of intelligence manifests itself in such a wide and varied scope of musical faculties. It is therefore seldom likely that two individuals will demonstrate the same form of this Intelligence. There are many cases of individuals that succeed immensely in one area of Musical Intelligence but are inadequate in another area of this Intelligence. After having composed his monumental Sixth Symphony, for example, Tchaikovsky almost ruined its debut performance with his appalling conducting. Another illustration would be that of Louis Armstrong’s formidable ability to improvise, compose and perform in the genre of jazz, but who could not read music notation. For this reason it is almost impossible to compile a checklist with specific guidelines as to what determines Musical Intelligence, but the list below is a brief overview of some of the possible indications and signs of someone who has a well-developed Musical Intelligence.

An individual who exhibits a high level of Musical Intelligence:

- Tells you when music sounds off-key or disturbing in some other way
- Remembers melodies of songs
- Has a good singing voice
- Plays a musical instrument or sings in a choir or other group (or if preschool, enjoys playing percussion instruments and/or singing in a group)
- Has a rhythmic way of speaking and/or moving
- Unconsciously hums to himself/herself
- Taps rhythmically on the table or desk as he/she works
• Is sensitive to environmental noises (e.g., rain on the roof)
• Responds favourably when a piece of music is put on
• Sings songs that he/she has learned outside of the classroom (Armstrong 2000:26)
• Frequently listens to music on radio, mp3, iPod’s or CD’s
• Plays a musical instrument
• Feels that their life would be poorer if there were no music in it
• Sometimes catches themselves walking down the street with a tune running through their mind
• Can easily keep time to a piece of music with a simple percussion instrument
•Knows the tunes to many different songs or musical pieces
• After hearing a specific musical piece once or twice, is usually able to sing it back fairly accurately
• Listens and responds with interest to a variety of sounds, including the human voice, environmental sounds, and music, and organizes such sounds into meaningful patterns
• Responds to music kinaesthetically by conducting, performing, creating, or dancing; emotionally by responding to the moods and tempos of music; intellectually by discussing and analysing music; and/or aesthetically by evaluating and exploring the content and meaning of music
• Recognizes and discusses different musical styles, genres, and cultural variations. Demonstrates interest in the role music has and continues to play in human lives
• Develops the ability to sing and/or play an instrument alone or with others
• Uses the vocabulary and notations of music
• Enjoys improvising and playing with sounds, and when given a phrase of music, can complete a musical statement in a way that makes sense
• Expresses interest in careers involving music, such as being a singer, instrumentalist, sound engineer, producer, critic, instrument maker, teacher, or conductor
• May create original compositions and/or musical instruments

Musical Intelligence can be improved upon by:
• Using a familiar tune, song, or rap beat to teach spelling rules, or to remember words in series for a test
• Creating a poem with an emphasis on certain sounds for pronunciation
• Clapping out or walking out the sounds of syllables
• Reading together (choral reading) to work on fluency and intonation
• Reading a story with great emotion – sad, then happy, then angry. Talking about what changes – is it only tone?
• Working with words that sound like what they mean (onomatopoeia). For example: sizzle, cuckoo, smash
• Reading lyrics to music
• Using music as background while reviewing and remembering new material
• Using rhymes to remember spelling rules, i.e., “I before E except after C.” (http://literacyworks.org).

3.3.4 SPATIAL INTELLIGENCE
People whose strength lies in Spatial Intelligence tend to recall objects, ideas and events visually. This involves remembering precise dimensions, volumes and forms of various articles, such as diagrams, graphs, placards, pictures, graphics and pictures. They tend to go into interior decorating, architecture, engineering, photography, surveying, urban planning, being a pilot, graphic artist or an artist (http://en.wikipedia.org/wiki/Multiple_intelligences).

Spatial Intelligence incorporates the ability to the observe the world in a true and accurate way, and to be able to duplicate, reconstruct, or modify it as a result of the perception of an object or image without the actual object being present. Spatial Intelligence is a grouping of many diverse skills and capacities.
It is important, however, to take note that one should not consider Spatial Intelligence as visual-spatial only. It is true that this intelligence is connected to that of visual stimulus, but is not limited to it. It is well known that blind people have an extremely sophisticated and highly developed form of Spatial-Intelligence. Visual imagery and symbolism is older than linguistic imagery. Records from fossils have shown that vision and Visual-spatial Intelligence was advanced and very valuable in the lives of primitive man, more so than that of language and speech. These formed the foundation for the development of mathematics and writing. Communication may be shown to progress from figures and impressions to symbols and pictures, and eventually to symbolic systems and rules such as language, which become more and more theoretical and conceptual. Most current educational curricula recognize the significance of conceptual symbols in reading, recording and entering information, and in mathematics (Campbell, Campbell & Dickinson 2004:94; Pienaar 2008:49; http://literacyworks.org).

Spatial Intelligence deals more with recognizing structures or entities in real, tangible situations. It is also important in dealing with intangible reasoning, pondering and illustrating. This intelligence incorporates an accumulation of connected abilities: “visual discrimination, recognition, projection, mental imagery, spatial reasoning, image manipulation, and the duplication of inner or external imagery” (Campbell, Campbell & Dickinson 2004:94).

Spatial Intelligence does not only occur in individuals who are in possession of all of their senses, as was earlier intimated with reference to the blind. Particular encounters, such as that of colour, will never be experienced by blind people. Since they cannot see colours, colour is a very difficult concept for a blind person to understand. However, in their own way they do manage to develop a comprehension of what colour might be. Studies with blind people have shown that Spatial Intelligence is not entirely reliant on visual systems, and that blind people are even able to understand and grasp specific features and
characteristics of pictures. Blind individuals manage to distinguish geometrical forms through indirect techniques, like moving their hands down the length of a specific article: the longer their hands moves across the object, the larger it will be. They can also understand concepts like straightness, the curving and characteristics of objects to distinguish intricate, multifaceted articles. Research involving blind children has shown that “spatial representational systems are equally accessible to visual or to tactile experience; and there is not necessarily a privileged relationship between visual input and spatial intelligence” (Gardner 1983:186). Individuals who are idiot savants also show Spatial Intelligence, and this, yet again, confirms that this intelligence operates separately from other forms of intelligence (Gardner 1983a:185-186; Pienaar 2008:50-51).

An individual with a high level of Spatial Intelligence:

- Reports clear visual images
- Reads maps, charts, and diagrams more easily than text (or if preschool, enjoys looking at more than text)
- Enjoys art activities
- Likes to view movies, slides, or other visual presentations
- Enjoys doing puzzles, mazes, or similar visual activities
- Builds interesting three-dimensional constructions (e.g. LEGO buildings)
- Gets more out of pictures than words while reading
- Doodles on workbooks, worksheets, or other materials
- Frequently uses takes photographs or uses a video camera to record his/her environment
- Has vivid dreams at night
- Finds geometry easier than algebra in school
- Can comfortably imagine how something might appear if it were looked down on from directly above in a bird’s-eye view
- Prefers looking at reading material that is heavily illustrated
- Learns by seeing and observing
- Recognizes faces, objects, shapes, colours, details, and scenes
• Sees things in different ways or from “new perspectives”, such as the negative space around a form as well as the form itself, or detects one shape “hidden” in another
• Perceives both obvious and subtle patterns
• Creates concrete or visual representations of information
• Is proficient at representational or abstract design
• Expresses interest or skill in being an artist, photographer, engineer, videographer, architect, designer, art critic, pilot, or in other visually oriented careers (Armstrong 2000: 14; 25; Campbell, Campbell & Dickinson 2004:95;).

Spatial Intelligence can be improved upon by:
• Writing a language experience story and then illustrating it
• Studying and creating maps, diagrams and graphs
• Colour coding words so that each syllable is a different colour
• Writing a word on the blackboard with a wet finger, visualizing the word as it appears, and then seeing if you can spell it afterwards
• Taking a survey and putting the information in a chart
• Using pictures to stimulate reading or writing
• Visualizing spelling words
• Using the say-copy-look method of spelling
• Using colourful newspapers
• Using crossword puzzles (http://literacyworks.org).

3.3.5 BODILY-KINAESTHETIC INTELLIGENCE
People who are gifted in this form of intelligence enjoy being in motion, swimming, walking, hiking, dancing and are most often very good at various sports. They tend to have extremely fine motor skills and are fond of taking apart and putting together items. Potential career options in this field could be becoming a dancer, an actor, athlete, jeweller, carpenter, potter, physical therapist, doctor, surgeon, or soldier
The often-used term “body language” indicates that the human body, too, is able of speaking a language without the use of words, simply by using gestures, movements and postures of the body and eyes.

The Ancient Greeks sought out synchronization between the body and mind. They regularly exercised both body and mind so as to create a balance and harmony between them. Yet this intelligence has generally never been considered as significant as, for example, Linguistic or Logical-Mathematical Intelligence. As a result, the body and Bodily-Kinaesthetic Intelligence often receives less interest and consideration, and encouraging the kinaesthetic learning process has often been neglected and underestimated in schools.

Bodily-Kinaesthetic Intelligence is separate from the other intelligences. Studies have shown, for example, that people who have lost the ability to talk and think were still often fully able to execute very complex motor activities without any uncertainty at all (Campbell, Campbell & Dickinson 2000:65; Gardner 1983a:208, Pienaar 2008:53; http://literacyworks.org).

Dancing makes most use of Bodily-Kinaesthetic Intelligence, and is found in the majority of societies and traditions as a means to communicate emotions or religious convictions or to express ideas and convey messages of various kinds. Cultures and societies all have their means of defining the many different meanings and goals of their dance forms. Dance can be traced back thousands of years, where images of dancing have been discovered in ancient cave drawings in Europe, South Africa and elsewhere in the world (Gardner 1983a:224; Pienaar 2008:54).

Another form of communicating via Bodily-Kinaesthetic Intelligence is acting. In this style of expression, it is the task of the actor to watch and study situations in detail and then recreate the incident with accurateness. The ability to mimic situations and people starts at a fairly young age. Even at a few months of age,
babies copy their mothers’ movements and actions, and at about 2 years of age, toddlers are able to imitate events that they observe with a fair amount of accuracy. It is clear that even at this age, children are stronger in this intelligence than in most others (Gardner 1983a:226; Pienaar 2008:54).

In Western societies as well as in an increasing number of non-Western societies, athleticism is considered very important. Professional athletes are instructed and coached in the same manner as an artistic entertainer, and are exposed to many of the same stresses and opportunities as an entertainer. Athletics enables individuals to push their bodies to the limits, to use their bodies to entertain people, and to test how much their capacities can be stretched. When dealing with athletics, capabilities like strength, pace, accurateness, teamwork and cooperation are improved and developed so that good results in sport can be achieved. Merely having a high level of Bodily-Kinaesthetic Intelligence is not enough, however. In order to excel it is vital that individuals continually train and persevere in their respective sphere of athleticism (Gardner 1983a:231; Pienaar 2008:55).

Bodily-Kinaesthetic Intelligence does not only operate in isolation, however. It collaborates in important ways with other forms of intelligence. The body is far more than simply an entity unto itself. It is the vessel that contains our beliefs, feelings, emotions, innermost thoughts and dreams, and our opinions of ourselves and of others. The neglect of our Bodily-Kinaesthetic Intelligences can often lead to disastrous consequences in other spheres of our lives. The development of Musical Intelligence, for example, can be severely hampered if the appropriate forms of Bodily-Kinaesthetic Intelligence (practicing technique) are not simultaneously developed (Gardner 1983a:235-237; Pienaar 2008:55).

An individual with a high level of Bodily-Kinaesthetic Intelligence:

- Excels in one or more sports (or if preschool, shows physical prowess advanced for age)
- Moves, twitches, taps, or fidgets while seated for a long time in one spot
• Cleverly mimics other people’s gestures or mannerisms
• Loves to take things apart and put them back together again
• Puts his/her hands all over something he/she’s just seen
• Enjoys running, jumping, wrestling, or similar activities (or if older, will show these interests in a more “restrained” way – e.g. running to class, jumping over a chair)
• Has a dramatic way of expressing herself/himself
• Engages in at least one sport or physical activity on a regular basis
• Likes working with his/her hands at concrete activities such as sewing, weaving, carving, carpentry, or model building
• Finds that best ideas come to him/her while out for a long walk or jog, or when engaging in some or other kind of physical activity
• Often likes to spend free time outdoors
• Needs to touch things in order to learn more about them
• Enjoys daredevil amusement rides or similar thrilling physical experiences
• Would describe him/herself as well coordinated
• Develops coordination and a sense of timing
• Learns best by direct involvement and participation. Remembers most clearly what was done, rather than what was observed
• Enjoys concrete learning experiences such as field trips, model building, or participating in role play, games, assembling objects, or physical exercise
• Shows dexterity in working by means of small or gross motor movements
• Is sensitive and responsive to physical environments and physical systems
• Demonstrates skill in acting, athletics, dancing, sewing, carving, or keyboarding
• Has the ability to fine-tune and perfect physical performances through mind and body integration
• Understands and lives by healthy physical standards
• May express interest in careers such as that of an athlete, dancer, surgeon, or builder (http://www.spannj.org; Armstrong 2000: 14; 25; Campbell, Campbell & Dickinson 2004: 66).

Bodily-Kinaesthetic Intelligence can be improved upon in the following ways:

• Go through your wallet and pull out three things to talk about
• Trace letters and words on each other’s back
• Use magnetic letters, letter blocks, or letters on index cards to spell words
• Make pipe cleaner letters
• Form letters out of bread dough
• Use your whole arm (extend without bending your elbow) to write letters and words in the air
• Change the place where you write and use different kinds of tools to write, e.g., typewriter, computer, blackboard, or large pieces of paper
• Take a walk and read all the words you find during the walk
• Handle a stress ball during a study session
• Take a break and do a cross-lateral walk (http://literacyworks.org).

3.3.6 INTRAPERSONAL INTELLIGENCE

Individuals with this intelligence have a very good perception and understanding of themselves, and are sensitive to their inner disposition and temperament, inspirations, objectives, and aspirations. In extreme cases they may be introverts who tend to prefer pursuing singular activities and being alone. Such individuals are also generally very aware of their willpower, purpose, moral principles, beliefs, selflessness, honesty, and understanding of other people and themselves. In its most simple form Intrapersonal Intelligence is the skill to tell the difference between pleasure and pain, and the ability to become more or less involved in certain situations. In its most complex form, Intrapersonal Intelligence enables one to become aware of and to represent intricate and important collections of emotions. Individuals whose strength lies in this Intelligence tend to concentrate on theology, philosophy and psychology, and could also have the
occupation of that of a therapist, entrepreneur, counsellor or programme planner. At first Gardner (1983) made no distinction between Intrapersonal and Interpersonal Intelligence, but later (1999) refined his beliefs in this regard and recognised that they represented two separate forms of intelligence (Armstrong 2000:2; Gardner 1999a:42; Gardner 1983a:239; Kornhaber 2004:6).

Studies have shown that from the second that we are born, our Intrapersonal and Interpersonal (which shall be discussed later) Intelligences begin to mature, both of which develop from a mixture of familiarity, inherited factors and our settings. From infancy individuals form an intense bond with their parent(s) or the person(s) who takes care of them. This initial bonding is a vital part of an infant’s development, as it strengthens emotional wellbeing. It has been shown by research that if this primary relationship does not occur, it severely affects the manner in which children mature and the way in which they will interact with people later on in life. Because of this, it is extremely important for parents and caregivers to establish and encourage the groundwork for strong rational, emotional and bodily development (Campbell, Campbell & Dickinson 2004:187; Pienaar 2008:58-59).

From about 2 years of age, children react to their names and develop an increasing sense of their own identities. From age 2 up to age 5, they develop at an extremely rapid and intense pace. This is also the stage at which they become aware of their sexual identity. During this developmental phase they are still rather selfish and inconsiderate to the feelings of those around them. These 3 years are one of the most important phases in the development of Intrapersonal Intelligence, because here their feelings of achievement or insufficiency will determine their exploits. During their middle years, children’s constructive judgment of themselves will be negatively affected if they experience negative relations with those around them. If they do not succeed in forming acquaintances and friends during this phase of their lives, they might become isolated from people and become loners, and this will affect their opinion of themselves. During their teenage years, young people desire above all to be
accepted and loved; the way they view themselves is largely based on whether or not they feel loved. This is also the phase where teenagers’ understanding and awareness of themselves is developed; if they are not very sure of who they are they are far more likely to give in to peer pressures (Gardner 1983a:244-252; Pienaar 2008:58-59).

People who are strong in Intrapersonal Intelligence gather information about themselves by means of contemplation, introspection and self-talk. Through these means they learn to control negative or intense emotions. Intrapersonal Intelligence is also shaped by the way we react to external stimuli and factors that may have an effect on our knowledge of ourselves and on how we see ourselves. This Intelligence deals with our contemplations and ways of thinking; the more we are able to lead them into awareness and realization, the more we are able to connect our personal world to our external and real world (Campbell, Campbell & Dickinson 2004:187; Pienaar 2008:59).

The following “checklist” is characteristic of a person with a high level of Intrapersonal Intelligence:

- Is aware of a range of emotions
- Finds approaches and outlets to express feelings and thoughts
- Develops an accurate sense of self
- Is motivated to identify and pursue goals
- Establishes and lives by an ethical value system
- Works independently
- Is curious about the “big questions” in life: meaning, relevance, and purpose
- Gains insights into the complexities of self and the human condition
- Displays a sense of independence or a strong will
- Does well when left alone to play or study
- Marches to the beat of a different drummer in his/her style of living and learning
• Has a good sense of self-direction
• Prefers working alone to working with others
• Accurately expresses how he/she is feeling
• Is able to learn from his/her failures in life
• Has good self esteem
• Regularly spends time alone meditating, reflecting, or thinking about important life questions
• Is able to respond to setbacks with resilience
• Has some important life goals that are thought about on a regular basis
• Has a realistic view of his/her strengths and weaknesses (borne out by feedback from other sources)
• Would prefer to spend a weekend alone in a cabin in the woods rather than at a fancy resort with lots of people around
• Considers him/herself to be strong willed or independent minded
• Keeps a personal diary or journal to record the events of his/her inner life
• Is self employed or has thoughts about starting an own business (Armstrong 2000:16;27; Campbell, Campbell & Dickinson 2004:188).

Ways in which one can stimulate and develop Intrapersonal Intelligence include
• Going on “guided imagery” tours
• Setting aside time to reflect on new ideas and information
• Encouraging journal writing
• Working on the computer
• Practicing breathing for relaxation
• Using brainstorming methods before reading
• Listening to and reading “how to” tapes and books
• Reading “inspirational” thought-for-the-day books
• Reading cookbooks (http://literacyworks.org).
3.3.7 INTERPERSONAL INTELLIGENCE

Interpersonal Intelligence makes it possible for humans to identify and perceive other people’s emotions, feelings and intents and to derive from them means to resolve predicaments and troubles. This Intelligence gives us the ability to comprehend and to connect with other individuals and to take notice of any changes in their temperaments, purpose, rationale, frame of mind and competence. It allows us to form and develop affiliations and sustain bonds with others. Individuals with advanced social skills have occupations such as politicians, managers, administrators, and ministers of religion, social workers, nurses, public relations officers, counsellors, teachers, lecturers, competent parents and psychotherapists. These individuals like having companionship with others, interact very well with others, and effortlessly take on the role of organizer and person in charge. They tend to be sociable, extroverted, outgoing and love nothing more than dealing with and interacting with people. People skilled in this Intelligence take pleasure in working together and relating with individuals from all walks of life – different ages, social backgrounds, and occupations. These individuals do extremely well working in groups and shared ventures and assignments. A number of these individuals are also perceptive of other people’s feelings and are inquisitive with regards to different ways of life and standards of living amongst people from various cultures. Gardner considers Interpersonal Intelligence as the foremost part of the personal Intelligences (Pienaar 2008:62).

The following “checklist” is characteristic of a person with a high level of Interpersonal Intelligence:

- Bonds with parents and interacts with others
- Forms and maintains social relationships
- Recognizes and uses a variety of ways to relate to others
- Acknowledges the feelings, thoughts, motivations, behaviours, and lifestyles of others
- Participates in collaborative efforts and assumes various roles as appropriate, from follower to leader, in group endeavours
• Influences the opinions or actions of others
• Understands and communicates effectively in both verbal and nonverbal ways
• Develops skills in mediation, organizing others for a common cause, or working with others of diverse ages or backgrounds
• Expresses an interest in interpersonally oriented careers such as teaching, social work, counselling, management, or politics
• Seems to be a natural leader
• Gives advice to friends who have problems
• Seems to be street-smart
• Belongs to clubs, committees, organizations, or informal peer groups
• Enjoys informally teaching other children
• Has a good sense of empathy or concern for others
• Is regularly sought out by others for company
• Prefers to seek help from other people when having problems, rather than to work it out alone
• Enjoys pastimes like board games and charades more than individual ones like video games and solitaire

Ways in which one can improve Interpersonal Intelligence include:
• Taking part in group discussions or discussing a topic one-on-one
• Reading a dialogue or play together
• Doing team learning/investigating projects
• Setting up interview questions, and interviewing your family and friends. Write down the results
• Writing notes to one another instead of talking (http://literacyworks.org).
3.3.8 NATURALIST INTELLIGENCE

Naturalistic Intelligence was not amongst the original list of seven Multiple Intelligences identified by Gardner in 1983. Gardner added it as an eighth form of Intelligence in 1995. As a result, not all adherents to his theory have embraced this Intelligence as wholeheartedly as they did the first seven. This addition on Gardner’s part is very often criticized for being less of a distinct Intelligence and more of a hobby or pastime. Originally, Gardner considered Naturalist Intelligence as an aspect of the Logical-Mathematical and the Visual-Spatial Intelligences, but as he did more research with regard to this Intelligence, he felt strongly that it deserved to be classified as an independent Intelligence because it answered to all eight criteria previously discussed in this chapter, or, as Campbell (2004:220) describes them: “Core skills and operations, an evolutionary history, a symbol system, developmental timetables, and individuals who excel at or are severely deficient in these capacities” (Armstrong 2000:2; Campbell, Campbell & Dickinson 2004:220; Kornhaber, Fierros & Venema 2004:6; http://en.wikipedia.org/wiki/Multiple_intelligences).

We are all born with a certain amount of Naturalist Intelligence and are keen to explore and learn about the world and setting in which we find ourselves. We come into contact with our environments through our sensory experiences, through active watching, and through thinking about and examining our observations. Children want to comprehend how different things operate, how objects grow and develop. They want to discover environmental settings and also get excited when sorting items and categorizing patterns and arrangements. According to Gardner, individuals with high levels of Naturalistic Intelligence are extremely responsive and perceptive of their environment, both animate (fauna and flora) and inanimate. They are sensitive to nature and enjoy working with the outside world. They have a good capacity to cultivate, care for and produce object such as plants, and they find it effortless and uncomplicated to nurture, care for, work with, domesticate and train animals. They love being out in nature, learn best by being outdoors and working with their hands and bodies rather than in a structured classroom environment, and take much pleasure in categorizing
and identifying objects found in nature. All humans use Naturalist Intelligence when they recognize and interact with individuals, fauna, flora and other aspects of their surroundings. Through these interactions, they are able to distinguish and observe foreseeable patterns and changes in nature, weather, and the actions of flora and fauna. However, those whose strengths lie in this Intelligence are able to do so at a far more advanced level. Nonetheless it is imperative to remember that this Intelligence, just like every one of the others, can be taught and individuals can become more skilled in this specific area of Intelligence (Campbell, Campbell & Dickson 2004:220-221; Pienaar 2008:63-64; http://en.wikipedia.org/wiki/Multiple_intelligences).

Gardner speculates that this Intelligence developed from primitive human beings’ requirements and needs, when their existence relied on their ability to understand and identify dangerous or useful plants and animals, altering weather conditions and climates, and food supplies. The environments in which we now live are vastly different from those of primitive man. Today very few individuals have access to land with varied fauna and flora and their immediate existence no longer depends on their ability to survive in such an environment. Nowadays, children and teenagers tend to spend the majority of their free time inside, watching television, listening to music and playing computer games instead of being outside in nature. This results in restricted and limited opportunities to develop their Naturalist Intelligence. However, particular features of this Intelligence can still be taught to learners – features such as recognizing, categorizing and naming objects other than plants or animals. Interacting with the physical environment is not necessary in order for us to develop this Intelligence, although it makes a considerable difference. Naturalist Intelligence isn’t just concerned with organizing and studying objects in our environment, but also with staying alive and adjusting to the setting in which we find ourselves (Campbell, Campbell & Dickinson 2004:221; Pienaar 2008:64).

People whose strength lies in Naturalist Intelligence usually find themselves occupied in a scientific field, such as that of an explorer, astronomer,
meteorologist, biologist, scientist, botanist, conservationist, farmer, entomologist, zoologist, or geologist. These sciences study the foundations, development, and configuration of living organisms (Campbell, Campbell & Dickinson 2004:221; http://en.wikipedia.org/wiki/Multiple_intelligences).

An individual with a high level of Naturalist Intelligence:

- Explores human and natural environments with interest and enthusiasm
- Seeks out opportunities to observe, identify, interact with, or care for objects, plants, or animals
- Recognises patterns among members of a species or class of objects
- Pursues learning about life cycles of flora or fauna or the production of human-made objects
- Wants to understand “how things work”
- Uses tools such as microscopes, binoculars, telescopes, observation notebooks, and computers to study organisms or systems
- Learns taxonomies for plants and animals or other classification systems for linguistic structures or mathematical patterns
- May express interest in careers in biology, ecology, chemistry, zoology, forestry, or botany
- Likes to spend time backpacking, hiking, or just walking in nature
- Is competent at telling the difference between different kinds of trees, dogs, birds, or other types of flora or fauna
- Likes to read books and magazines, or watch television shows or movies that feature nature in some way
- Likes field trips in nature, to the zoo, or to a natural history museum
- Shows sensitivity to natural formations (e.g., while walking outside with the class, will notice mountains, clouds; or if in an urban environment, may show this ability in sensitivity to popular culture “formations” such as sneakers or automobile styles)
- Gets excited when learning about ecology, nature, plants, or animals
Speaks out in class for the rights of animals, or the preservation of planet earth

Enjoys doing nature projects, such as bird watching, butterfly or insect collections, tree study, or raising animals

Does well in topics at school that involve living systems (e.g., biological topics in science, environmental issues in social studies).

(Armstrong 2000:16;22; Campbell, Campbell & Dickinson 2004:27).

Ways in which to encourage and improve Naturalist Intelligence are:

- Spending time outside noticing patterns in nature
- Reading books and articles about nature and the environment
- Taking hikes or visit tidal pools, and recording significant details about what is found
- Comparing seeds, seedlings, and adult plants; mixing them up and matching each seed to its corresponding seedling and adult

(http://literacyworks.org/mi/pratice/engage-nature.html).

3.4 FOUR IMPORTANT POINTS ABOUT MULTIPLE INTELLIGENCES

In “Multiple Intelligences in the Classroom” (2000) Thomas Armstrong makes four important points about Multiple Intelligences. They are:

- Each person possesses all eight Intelligences
  All eight of the Multiple Intelligences are present in varying degrees in every person, and function mutually in ways that are distinctive to each person – no two people share the same combination of strengths and weaknesses of the eight Intelligences. Some humans are very capable in the majority or all of the Intelligences, whereas others are exceptionally strong in some and extraordinarily weak in others, people like this usually being idiot savants or
prodigies who come across as mentally challenged. The average person falls somewhere between these two extremes (Armstrong 2000:8-9).

- **Most people can develop each intelligence to an adequate level of competency**
  Gardner states that with assistance, support and tutoring, all humans have the ability to expand and improve all of the eight Intelligences to a satisfactorily elevated degree. The Suzuki Talent Education Programme is a perfect illustration of this line of reasoning. This program takes people of average musical ability, and through all of the correct procedures and methods, helps them to attain advanced and even superior levels of competence on instruments such as the piano and violin (Armstrong 2000:9).

- **Intelligences usually work together in complex ways**
  Intelligences do not function in isolation from each other, except in the rare cases of idiot savants, prodigies and those who have suffered brain-damage. The various Intelligences are continually cooperating and relating with each other. An illustration of this claim is that of a little boy kicking his ball outside. Bodily-Kinaesthetic Intelligence is needed for him to be able to run, kick and catch the ball, Spatial Intelligence to familiarize himself with the area within which he is playing and to also predict the direction from which the ball will come, and Linguistic and Interpersonal Intelligences so that he can convey instructions to any other boys who are also playing along, or to reason with the others when he disagrees with something while playing. Here, the Intelligences have been deliberately described in isolation so that we are able to understand their individual roles and their fundamental characteristics, and how they can be developed to higher levels of efficiency. It is extremely important, however, that our understanding of them not stop there but that we learn to understand their role in the collaborative perspective and context in which they would ordinarily be required (Armstrong 2000:9).
There are many ways to be intelligent within each category

There is no specific list of characteristics that must be achieved in order for one to be regarded as gifted or intelligent in a particular subject or topic. A person might be able to play an instrument with musicality, sensitivity and emotions, but might be tone-deaf and not be able to sing a single note on the correct pitch. This doesn't mean that the person is not talented in Musical Intelligence; it merely means that he or she is strong within one of the many spheres of Musical Intelligence but weak in others. The Multiple Intelligences theory gives emphasis to the great assortment of ways in which humans are able to display and demonstrate their skills within and between the various forms of Intelligence (Armstrong 2000: 9).

3.5 HOW MULTIPLE INTELLIGENCES ARE IMPLEMENTED IN SCHOOLS

In the table below Armstrong (2000: 22) provides a practical and useful checklist according to which teachers may identify children with partialities and preferences to any one of the eight Intelligences, and the simplest ways to keep them constructively occupied in their classrooms accordingly.

Table 3.2. Eight Ways of Learning (Armstrong 2000: 22).

<table>
<thead>
<tr>
<th>Children who are highly:</th>
<th>THINK</th>
<th>LOVE</th>
<th>NEED</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Linguistic</strong></td>
<td>In words</td>
<td>Reading, writing, telling stories, playing word games</td>
<td>Books, tapes, writing tools, paper, diaries, dialogue, discussion, debate, stories.</td>
</tr>
<tr>
<td><strong>Logical-Mathematical</strong></td>
<td>By reasoning</td>
<td>Experimenting, questioning, figuring out logical puzzles, calculating</td>
<td>Materials to experiment with, science materials, manipulatives, trips to the planetarium and science museum.</td>
</tr>
<tr>
<td>Spatial</td>
<td>In images and pictures</td>
<td>Designing, drawing, visualizing, doodling</td>
<td>Art, LEGO’s, video, movies, slides, imagination games, mazes, puzzles, illustration books, trips to art museums.</td>
</tr>
<tr>
<td>--------------</td>
<td>------------------------</td>
<td>-------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Bodily-Kinaesthetic</td>
<td>Through somatic sensations</td>
<td>Dancing, running, jumping, building, touching, gesturing</td>
<td>Role play, drama, movement, things to build, sport and physical games, tactile experiences, hands-on learning.</td>
</tr>
<tr>
<td>Musical</td>
<td>Via rhythms and melodies</td>
<td>Singing, whistling, humming, tapping feet and hands, listening</td>
<td>Sing-along time, trips to concerts, music playing at home and school, musical instruments.</td>
</tr>
<tr>
<td>Interpersonal</td>
<td>By bouncing ideas off other people</td>
<td>Leading, organizing, relating, manipulating, mediating, partying</td>
<td>Friends, group games, social gatherings, community events, clubs, mentors/apprenticeships.</td>
</tr>
<tr>
<td>Intrapersonal</td>
<td>In relation to their needs, feelings, and goals.</td>
<td>Setting goals, mediating, dreaming, planning, reflecting</td>
<td>Secret places, time alone, self-paced projects, choices.</td>
</tr>
<tr>
<td>Naturalist</td>
<td>Through nature and natural forms</td>
<td>Playing with pets, gardening, investigating nature, raising animals, caring for planet earth</td>
<td>Access to nature, opportunities, for interacting with animals, tools for investigating nature (e.g., magnifying glass, binoculars).</td>
</tr>
</tbody>
</table>

In the section that follows I shall look more closely at how educators should identify Multiple Intelligences, how these could be accommodated in classrooms, and how classroom practice might be adapted to articulate with various learning styles.

3.5.1 **EVALUATING LEARNERS’ MULTIPLE INTELLIGENCES**

Armstrong describes a number of ways in which educators can assess the Multiple Intelligences of their learners. One of the most obvious methods is
merely by watching and monitoring them in class. Very often this can be identified in the form of negative or disruptive behaviour. A learner who is strong in Linguistic Intelligence, for example, will be the one talking constantly, the Bodily-Kinaesthetic one will be restless and will be moving around the class, the Spatial learner will be, daydreaming, and the learner who is strong in the Interpersonal Intelligence will be mingling amongst his or her peers. A further way of identifying Multiple Intelligences is by observing how learners spend their free time – what do they do when nobody has given them instructions to do a specific activity: The Linguistic learners will be writing or reading, the Musical learners will be humming to themselves or tinkling on the class piano or instruments in the class, the Spatially strong learners will be drawing or creating something with their hands, and the Interpersonal learners will be playing games with the others in the class. By means of these simple observations, an educator can learn a multitude of features and details of a learner’s character and intelligences. Educators should also consider keeping journals or diaries for jotting down basic remarks about their various students. Although it may be impossible to do this for every single learner in the class, it may nevertheless be interesting to zone in on a few that may be the trouble makers or the learners whom the teacher cannot quite fathom. Writing a few facts or observations about each of these learners every few days over a period of some months may assist the teacher to better understand their particular Multiple Intelligences profiles (Armstrong 2000:21-23).

Other more significant ways in which to accumulate information about a learner’s Multiple Intelligences include:

- **Collecting Documents**
  
  Written documents aren’t the only means by which an educator can document information about a learner’s strengths and weaknesses. Visual and audio evidence can often be far more informative. A camera is a useful tool to have to take pictures “in the moment” of a student showing his or her Multiple Intelligences. This can include taking photos of LEGO structures, art work, or
models made out of play-dough or clay. Making use of a tape recorder, video camera or Dictaphone is good way to record songs, dramas, and outdoor physical activities such as a sports match or how they display their Naturalist Intelligence by watering plants, tending to a garden patch or planting a flower. (Armstrong 2000:23).

- **Looking at School Records**

  Conventional school records can provide teachers with vital information about learners’ Multiple Intelligences. It is a good idea to refer to previous years’ marks and records of their personality traits to further understand them and their progress and maturation. Have their scores in mathematics and science consistently been higher than in their languages? This may mean that their strengths are in Logical-Mathematical rather than in Linguistic Intelligence. A learner who plays an instrument, loves singing and actively takes part in classroom music activities clearly has a higher Musical Intelligence than one who prefers to excel in sports and physical education (Bodily-Kinaesthetic Intelligence) (Armstrong 2000:23).

  There are a variety of tests that one can use to identify a learner’s Multiple Intelligences. These include:

  - **Linguistic.** Reading tests, language tests, the verbal sections of intelligence, and intelligence and achievement tests
  - **Logical-Mathematical.** Piagetian assessments, maths achievement tests, the reasoning sections of intelligence tests
  - **Spatial.** Visual-memory and visual-motor tests, art aptitude tests, some performance items on intelligence
  - **Bodily-Kinaesthetic.** Sensormonitor tests, some motor subtests in neuropsychological batteries, physical fitness tests
  - **Interpersonal.** Social maturity scales, sociograms, interpersonal projective tests (e.g. Family Kinetic Drawings)
  - **Intrapersonal.** Self-concept assessments, projective tests
• **Naturalist.** Test items that include pictures of animals, plants, or natural settings (Armstrong 2000:23; 28).

Extremely vital sources of information on a learner’s Multiple Intelligences is provided by preschool and pre-primary teachers. They are the first to notice and identify the eight Multiple Intelligences in that of the young child. Comments made by these teachers, such as “loves singing”, “has good coordination”, “interacts very well with peers”, “enjoys creating objects during art time”, gives crucial information to future teachers about their intelligences and strengths. This information supplies the future teacher with reliable and dependable observations they can use to build on learners’ strengths and encourage them in their weaknesses (Armstrong 2000:23,28).

• **Talking with Other Educators**
Quite often, different educators may teach different subjects to various classes, and thus the class educator doesn’t deal with the same group of learners all day long. It is very important to be in constant communication with the other educators as to what they notice and observe in a particular learner’s approach to the subject, how they behave in class, and their marks that accumulate through projects and tests. The class educator may not notice, for example, Musical Intelligence in a specific child, but the educator taking the class for class music lessons might identify a very strong Musical Intelligence in that individual, and this should be communicated to the class teacher. Without ongoing conversations between educators, this could quite sadly be overlooked (Armstrong 2000:28).

• **Talking with Parents**
Most times, parents or guardians are very aware of what their child’s strengths and weaknesses are, as they see and observe how the child grows, matures and develops and shows various intelligences (assuming, of course that the parents are an active part of their children’s lives). At educator-parent evenings, it is a good idea to introduce the parents to Multiple Intelligences and explain each of them, and also give examples of how parents can
encourage the various strengths they recognise in their children whilst also encouraging those in which their children show little strength. Being in correspondence on a fairly regular basis with the parents could also help the educator, as parents could inform the educator how the child approaches homework, which subjects they choose first and what they do in their spare-time (Armstrong 2000:28-29).

• **Asking Learners**
  The learners themselves are the best at understanding how they approach and do their homework. This would imply that the educator should first explain the concept of Multiple Intelligences to their learners on a level that they would easily grasp and understand, and that they could implement into their everyday lives. Even though it would be very time consuming, it is a good idea for teachers to have one-on-one meetings with their learners to try and understand what they feel their strengths and weaknesses are. (Armstrong 2000:29).

• **Setting Up Special Activities**
  Educators who choose to teach with due cognisance taken of their learners’ different Multiple Intelligences have numerous ways to approach assessment. If they have the time and energy to do so, they may invent creative ways to teach topics such as division or spelling using all eight of the different Intelligences. By observing how they each react to these, teachers may be able to identify which learners are strong in which Intelligences. Armstrong uses the example of a learner who may get bored and start daydreaming in class while the teacher is explaining a topic in the Logical-Mathematical method, while he or she shows great excitement and actively participates if the teacher approaches the same topic in a musical way. Another very helpful idea in approaching a subject through all eight Intelligences is by having activity centres in various parts of the classroom in which learners are able to learn about the subject at hand in any one of the eight different Intelligences.
(Armstrong 2000:29). These and other strategies will be discussed in greater detail below.

3.5.2 INCORPORATING LEARNER-CENTRED AND TEACHER-CENTRED APPROACHES

There are various ways in which teachers or educators can integrate their awareness of Multiple Intelligences into their implementation of the national curriculum and the school syllabus. Project-based and shared learning are two ways in which Multiple Intelligences can be taught. Project-based learning enables learners to discover, study and investigate a specific topic and then create and design an article or project as the outcome of their study. Collaborative learning gives learners the opportunity to work together in groups or as a team, which strengthens their Interpersonal Intelligences. Educators must take time and care to choose activities that directly teach through the Intelligences, but in addition, must interlock and interconnect with the subject that is being dealt with. It is very important that educators use Multiple Intelligences theory to improve and develop what is being taught instead of sidetracking and diverting the point and aim of the lesson. A good idea could be for the educators to briefly and simply explain the theory of Multiple Intelligences to their class. Once the learners have grasped the principles of Multiple Intelligences, the teacher can let the learners do a self-assessment test to discover what their strengths and weaknesses are. The learners themselves will then be able to embrace their strengths and try and improve upon their weaknesses. Lesson plans can either be teacher-centred or student-centred (http://projects.coe.uga.edu).

3.5.2.1 Learner-Centred Lessons

These forms of lessons are focussed on objects and projects created by the learners themselves. The most important aspect of this form of learning is giving learners scope to make their own decisions and selections instead of giving them specific instructions to follow. Educators should support and encourage learners
to focus on their less prominent Intelligences in order to strengthen them, but also to discover their strengths and develop them even further.

Giles, Pitre and Wornack\textsuperscript{15} 2003 (http://projects.coe.uga.edu) suggest the following strategies for putting into action a learner-centred lesson or part of a lesson:

- Carefully consider instructional goals, objectives and instructional outcomes
- Consider activities that you can integrate into the lesson or unit that teach to the different Intelligences. Learners need not incorporate all eight Intelligences into one lesson
- When gathering resources and materials, consider those which will allow learners to explore the Multiple Intelligences
- Specify a timeframe for the lesson or unit
- Allow for a considerable element of learner choice when designing activities and tasks for the Intelligences
- Design activities that are learner-centred, using inquiry-based models of instruction
- Provide a rubric for learner activities. You might consider having learners help create rubrics
- Incorporate assessment into the learning process (http://projects.coe.uga.edu).

\textbf{3.5.2.2 Educator-Centred Lessons}

When lessons are educator-centred, educators supply resources and equipment, provide prior information to learners, and attempt to change understandings that learners have thus far imprinted into their minds. This can be achieved through ‘traditional’ lessons, watching educational DVD’s, taking learners on outings, or arranging group work and group assignments. All of these lessons should include the Multiple Intelligences. However, when lessons are educator-centred they

\textsuperscript{15} These authors hail from the Department of Educational Psychology and Instructional Technology at the University of Georgia in the United States of America.
should not incorporate too many activities so that the learners can focus on fully grasping the subject that the teacher is trying to convey. It is a helpful idea for the educator to introduce the topic or specific subject from a educator-centred point of view and, after that, to follow up with a learner-centred lesson, so that learners can show that they have understood and are able to apply what they have been taught. Measuring and assessing the work of learners is an issue in integrating Multiple Intelligences. It is important to assess the learners after every unit of work has been completed to ensure that they have grasped what has been taught. Most times, the work is marked by means of using rubrics, and learners are required to keep a file or book containing their work and marks. When marking by means of a rubric, educators need to provide sufficient detail about what they expect of the learners’ work (http://projects.coe.uga.edu).

Here is a check-list for a teacher-centred lesson or part of a lesson:

- Identify instructional goals and objectives
- Consider educator-centred activities that teach to learners’ multiple intelligences. In an educator-centred lesson, limit the activities to two or three
- Consider what resources and materials you will need to implement the lesson. For example, will you need to schedule a museum visit or to consult a Media Specialist for videos or other media?
- Specify a timeframe for the lesson or unit
- Provide an opportunity for reflection by learners
- Provide a rubric to scaffold student activities
- Integrate assessment into the learning process (http://projects.coe.uga.edu).

There are many instructional and educational instruments in Multiple Intelligence theory that are very different to the usual, long-established “educator-as-lecturer mode of instruction” (Armstrong 2000:40). The table below is a brief yet concise summary of some Multiple Intelligence teaching techniques. Although this list is by no means complete, it does offer some innovative and helpful ideas for teachers who wish to start implementing Multiple Intelligences into their classes.
<table>
<thead>
<tr>
<th>Intelligence</th>
<th>Teaching Activities (examples)</th>
<th>Teaching Materials (examples)</th>
<th>Instructional Strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Linguistic</td>
<td>Lectures, discussions, word games, storytelling, choral reading, journal writing</td>
<td>Books, tape recorders, Dictaphones, computers, stamp sets, books on CD</td>
<td>Read about it, write about it, talk about it, listen to it</td>
</tr>
<tr>
<td>Logical-Mathematical</td>
<td>Brain teasers, problem solving, science experiments, mental calculation, number games, critical thinking</td>
<td>Calculators, maths manipulatives, science equipment, math games</td>
<td>Quantify it, think critically about it, put it in a logical framework, experiment with it</td>
</tr>
<tr>
<td>Spatial</td>
<td>Visual representations, art activities, imagination games, mind-mapping, metaphor, visualization</td>
<td>Graphs, maps, video, DVD’s, LEGO sets, art materials, optical illusions, cameras, picture library</td>
<td>See it, draw it, visualize it, colour it, mind-map it</td>
</tr>
<tr>
<td>Bodily-Kinaesthetic</td>
<td>Hands-on learning, drama, dance, sports that teach, tactile activities, relaxation exercises</td>
<td>Building tools, clay, sports equipment, manipulatives, tactile learning resources</td>
<td>Build it, act it out, touch it, get a “gut feeling” of it, dance it.</td>
</tr>
<tr>
<td>Musical</td>
<td>Rhythmic learnings, rapping, using songs that teach</td>
<td>Tape recorder, DVD player, CD player, musical instruments, collection of musical CD’s</td>
<td>Sing it, rap it, listen to it</td>
</tr>
<tr>
<td>Interpersonal</td>
<td>Cooperative learning, peer tutoring, community involvement, social gatherings,</td>
<td>Board games, party supplies, props for role plays</td>
<td>Teach it, collaborate on it, interact with respect to it</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Multiple Intelligences</th>
<th>Educator Centred</th>
<th>Learner Centred</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Intrapersonal</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Verbal-Linguistic</td>
<td>• Present content verbally</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Ask questions aloud and look for student feedback</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Interviews</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Learners present material</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Learners read content and prepare a presentation for their classmates</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Learners debate over an issue.</td>
<td></td>
</tr>
<tr>
<td>Logical-Mathematical</td>
<td>• Provide brain teasers or challenging questions to begin lessons</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Make logical connections between the subject matter and authentic situations to answer the question</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Learners categorize information in logical sequences for organization</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Learners create graphs or charts to explain written info</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Learners participate in</td>
<td></td>
</tr>
</tbody>
</table>

Table 3.4 below sets out the differences between educator-centred and learner-centred lessons.

**Table 3.4 Teacher-centred and Learner-centred Approaches to Multiple Intelligences in the Classroom**

<table>
<thead>
<tr>
<th><strong>why</strong></th>
<th>web-quests associated with the content.</th>
</tr>
</thead>
</table>
| **Bodily-Kinaesthetic** | • Use props during lecture  
• Provide tangible items pertaining to content for learners to examine  
• Review using sports related examples (throw a ball to someone to answer a question)  
• Learners use computers to research matter subject matter  
• Learners create props of their own explaining subject matter (shadow boxes, mobiles, etc…)  
• Learners create review games. |
| **Visual-Spatial** | • When presenting the information, use visuals to explain content  
• PowerPoint slides, charts, graphs, cartoons, videos, overheads, smartboards  
• Have learners work individually or in groups to create visuals pertaining to the information  
• Posters, timelines, models, PowerPoint slides, maps, illustrations, charts, concept mapping. |
| **Musical** | • Show examples or create musical rhythms for learners to remember things.  
• Use well known songs to memorize formulas, skills, or test content. |
| **Intrapersonal** | • Encourage journaling as a positive outlet for expression  
• Introduce web logging (blogs)  
• Make individual  
• Journaling  
• Individual research on content  
• Learners create personal portfolios of work. |
3.5.3. **DIFFERENT LEARNING STYLES**

This phrase indicates the multitude of different and unique ways that learners take in and comprehend information, as nobody learns or understands topics and subjects in the same way, thus the importance of emphasizing Multiple Intelligences in schools. A definition of learning styles is “the composite of characteristic cognitive, affective, and physiological factors that serve as relatively stable indicators of how a learner perceives, interacts with, and responds to the learning environment” ([http://projects.coe.uga.edu](http://projects.coe.uga.edu)). Individuals

<table>
<thead>
<tr>
<th><strong>Interpersonal</strong></th>
<th>Create a positive environment.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Be aware of body language and facial expressions</td>
</tr>
<tr>
<td></td>
<td>• Offer assistance whenever needed</td>
</tr>
<tr>
<td></td>
<td>• Encourage classroom discussion</td>
</tr>
<tr>
<td></td>
<td>• Encourage collaboration among peers</td>
</tr>
<tr>
<td></td>
<td>• Group work strengthens interpersonal connections</td>
</tr>
<tr>
<td></td>
<td>• Learners present to the class</td>
</tr>
<tr>
<td></td>
<td>• Encourage group editing.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Naturalistic</strong></th>
<th>Take class outside to enjoy nature while in learning process (lecture)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Compare authentic subject matter to natural occurrences</td>
</tr>
<tr>
<td></td>
<td>• Relate subject matter to stages that occur in nature (plants, weather, etc)</td>
</tr>
<tr>
<td></td>
<td>• Learners organize thoughts using natural cycles</td>
</tr>
<tr>
<td></td>
<td>• Learners make relationships among content and the natural environment (how has nature had an impact?)</td>
</tr>
<tr>
<td></td>
<td>• Learners perform community service.</td>
</tr>
</tbody>
</table>

---

**questions welcome**

- Create a positive environment.
approach learning and studying in various ways, and the societies and thus cultures in which they grow up have a direct influence on their learning styles. Two other contributing factors are knowledge and maturity. According to Emily Giles, Sarah Pitre and Sara Womack (2003), there are four main learning styles – visual, aural, reading/writing and kinaesthetic/tactile. The majority of individuals incorporate all four of these styles into their learning, but tend to favour one of the styles more than the rest. Certain individuals are strong in all of the styles, however, which is known as the multimodal style.

- **Visual Learning Style**
  Learners take in information when physically seeing the information. Information could comprise of diagrams, maps, grids, tables, and charts. These kinds of learners reason and think in images, and have very vibrant imaginations. This type of learning is the most popular one ([http://projects.coe.uga.edu](http://projects.coe.uga.edu)).

- **Aural Learning Style**
  These learners take in information best by hearing it and listening to lessons and lectures. They thrive on debating and discussing topics, and are exceptional listeners, and when trying to remember lessons and lectures, they tend to “hear” what was said. Scholars who achieve best through the aural learning style also tend to love drama and music ([http://projects.coe.uga.edu](http://projects.coe.uga.edu)).

- **Reading / Writing Style**
  Learners who prefer this style of learning take in information most effectively when given to them in written form. They enjoy it when educators use blackboards, smartboards, PowerPoint presentations, and overhead projectors to present lessons. These types of learners recall lessons vividly in their “mind’s eye” and can sometimes “see” the page or writing that was presented to them. Most academics and researchers are strongest in this style of learning ([http://projects.coe.uga.edu](http://projects.coe.uga.edu)).
Kinaesthetic / Tactile Learning Style

Learners learn best through this method by physical and tangible means. Kinaesthetic learning deals with using the whole body, while tactile learning deals with touch only. Learners generally learn best by means of knowledge, preparation, repetition and stimulus. Those who are strongest in this learning style tend to use body language and make gestures while communicating, they find listening very difficult, and they easily become distracted almost instantly during lengthy lectures (http://projects.coe.uga.edu).

The table below presents a helpful summary to assist educators in ensuring that they understand and accommodate the different learning styles they are likely to encounter amongst their learners, and to encourage their learners to put in a fair amount of effort from their side to adapt the learning material according to their own learning styles.

**Table 3.5. Learning Strategies for Each Learning Style**[^18]

<table>
<thead>
<tr>
<th>Visual Learning Style</th>
<th>Aural Learning Style</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Replace words with symbols or initials</td>
<td></td>
</tr>
<tr>
<td>• Translate concepts into pictures and diagrams</td>
<td></td>
</tr>
<tr>
<td>• Underline or highlight your notes or textbooks with different colours</td>
<td></td>
</tr>
<tr>
<td>• Practice turning your visuals back into words</td>
<td></td>
</tr>
<tr>
<td>• Make flashcards of key information with words, symbols, and diagrams</td>
<td></td>
</tr>
<tr>
<td>• Attend lectures and tutorials</td>
<td></td>
</tr>
<tr>
<td>• Discuss topics with your instructor and other students</td>
<td></td>
</tr>
<tr>
<td>• Put summarized notes on tape and listen to them</td>
<td></td>
</tr>
<tr>
<td>• Join a study group or have a “study</td>
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</table>

| buddy” | • Tape record or use a Dictaphone to record your lectures  
• When recalling information or solving problems, talk out loud |
|---|---|
| **Reading / Writing Learning Style** | • Write out your most important information  
• Read your notes silently  
• Organize any diagrams into statements  
• Rewrite any ideas and principles in other words  
• Make flashcards of words and concepts that need to be memorized. |
| **Kinaesthetic / Tactile Learning Style** | • Sit near the instructor in classroom situations  
• Read out loud from your textbook and notes  
• Copy key points onto large writing surfaces (i.e. chalkboard or easel board)  
• Copy key points using word processing software  
• Listen to audiotapes or recordings on your Dictaphone of your notes while exercising  
• Take in information through field trips, laboratories, trial and error, exhibits, collections, and hands-on examples  
• Put real life examples into your note summary  
• Recall experiments and role-play  
• Use pictures and photographs that illustrate an idea. |
3.5.4 MULTIPLE INTELLIGENCE AND ENVIRONMENTAL ASPECTS IN LEARNING

Multiple Intelligence theory gives educators a guide by which they are able to observe some of the important ecological aspects and features in learning. Each of the eight intelligences requires educators to ask specific questions about the classroom as a learning environment. What in this environment will either encourage or hinder the learning process, and which objects could be brought in or taken out of the classroom to best promote Multiple Intelligences learning? Armstrong encourages educators to consider the following (Armstrong 2000:67 - 69):

Linguistic Intelligence:

- How are the spoken words used in the classroom? Are the words used by the educators too complex or too simple for the learners’ level of understanding, or is there a good match?
- How are the learners exposed to the written word? Are words represented on the walls (through posters and quotations)? Are written words presented through primary sources, (e.g., novels, newspapers, historical documents) or through textbooks and workbooks written by committees?
- Is there too much “linguistic pollution” in class (endless exposure to dittos and busy work), or are learners being empowered to develop their own linguistic materials? (Armstrong 2000:67)

Logical-Mathematical Intelligence

- How is time structured in the classroom? Do learners have opportunities to work on long-term projects without being interrupted, or must they continually break off their activities to move on to a new topic?
- Is the school day sequenced to make optimal use of learners’ attention spans (morning best for focussed academic work, afternoons for more open-ended activities), or do they have to perform under conditions that don’t match changes in their attention span?
• Is there some consistency to learners' school days (e.g., routines, rituals, rules, effective transitions to new activities), or is there a sense of chaos, or reinventing the wheel with the start of each new school day? (Armstrong 2000:67-68)

Spatial Intelligence
• How is the classroom furniture arranged? Are there different spatial configurations to accommodate different learning needs (e.g., desks for written work, tables for discussion or hands-on work, carrels for independent study), or is there only one arrangement (e.g., straight rows of desks)?
• Is the room attractive to the eye (e.g., art-work on the walls), or is it visually boring or disturbing?
• Are learners exposed to a variety of visual experiences (e.g., optical illusions, cartoons, illustrations, movies, great art, or does the classroom environment function as a visual desert?
• Do the colours of the room (walls, floors, ceiling) stimulate or deaden students' senses?
• What kind of illumination is used (fluorescent, incandescent, natural)? Do the sources of light refresh learners or leave them feeling distracted and drained? (Armstrong 2000:68)

Bodily-Kinaesthetic Intelligence
• Do learners spend most of their time sitting at their desks with little opportunity for movement, or do they have frequent opportunities to get up and move around (e.g., through exercise breaks and hands-on activities)?
• Do learners receive healthy snacks and a well-designed breakfast or lunch during the day to keep their bodies active and their minds alert, or do they eat junk food during recess and have mediocre cafeteria meals?
• Are there materials in the classroom that allow learners to manipulate, build, be tactile, or in other ways gain hands-on experience or does a “don't touch” ethos pervade the room? (Armstrong 2000:68)

**Musical Intelligence**

• Does the auditory environment promote learning (e.g., background music, white noise, pleasant environmental sounds, silence), or do disturbing noises frequently interfere with learning (e.g., loud buzzers or bells, aircraft overhead, car and truck noises outside, industrial machines)?
• How does the teacher use his/her voice? Does it vary in intensity, inflection, and emphasis, or does it have a dull, monotone quality? (Armstrong 2000:68)

**Interpersonal Intelligence**

• Does an atmosphere of belonging and trust permeate the classroom, or do learners feel alienated, distant, or mistrustful of one another?
• Are there established procedures for mediating conflict between class members, or must problems often be referred to a higher-authority (e.g., the principal) for resolution?
• Do learners have frequent opportunities to interact in positive ways (e.g., peer teaching, discussions, group projects, cooperative learning, parties), or are they relatively isolated from one another? (Armstrong 2000:68)

**Intrapersonal Intelligence**

• Do learners have opportunities to work independently, develop self-paced projects, and find time and space for privacy during the day, or are they continually interacting?
• Are learners exposed to experiences that heighten their self-concept (e.g., self-esteem, genuine praise and other positive reinforcement, frequent success experiences in their school work), or are they subject to put-downs, failures, and other negative experiences?
• Do learners have the opportunity to share feelings in the classroom, or is the inner life of each learner considered off limits?

• Are learners with emotional difficulties referred to professional counsellors for support, or are they simply left to fend for themselves?

• Are learners given authentic choices in how they are to learn, or do they have only two choices: “My way or the highway”? (Armstrong 2000:68-69)

**Naturalist Intelligence**

• Are learners given an opportunity to do some of their learning outside of the school building in their natural settings (e.g., field trips, gardening, class on the lawn), or do they remain isolated from their natural world during most of their in-school time?

• Does the classroom contain any living things (e.g., pet visitors, aquarium, gerbil cage, plants, terrarium), or is the occasional fly the only nonhuman living thing to enter its portals?

• Does the classroom provide windows that look out onto the sky, clouds, trees, lawn, or other natural phenomena, or is it windowless and shut in from any contact with the world of nature? (Armstrong 2000:69)

**3.5.5 MULTIPLE INTELLIGENCE ACTIVITY CENTRES**

Campbell (1989) documents his personal implementation of Learning Centres into his classroom and incorporation of these into his teaching. He says that constructing subject lessons took quite a some time and was rather challenging initially (approaching lessons in eight different ways is far from simple), but after seeing how his learners reacted so positively to these new styles of lessons, and how they enjoyed actively being involved in their lessons, all the hours he spent planning paid off. Learning Centres are alternatively referred to as Learning Stations, and are situated in various places in the classroom. They present the educator and the learner with an assortment of ways to approach a specific subject or topic. Usually, the day starts with the educator giving an explanation of the topic or subject that will be dealt with for the day. The learners normally
spend between 15 and 20 minutes at each of the various activity centres. The class is divided up into groups of about 4 or 5 learners, and they perform the various activities at the different centres. After approximately 3 hours of spending time at the activity centres, they are knowledgeable and comfortable with the topic at hand. Reorganizing the classroom to create “intelligence-friendly” zones (Armstrong 2000:69) in the class immensely enhances the learning process for both teacher and learner. Although these Learning Centres are used mainly in Pre-Primary and Primary Schools, this method of teaching is also very effective in High Schools (Armstrong 2000:69; http://www.newhorizons.org; http://context.org).

The Concept to Classroom website (http://thirteen.org) gives a very concise definition and description of the various Learning Centres:

**Reading / Writing Centre** (for encouraging Verbal-linguistic; Visual-Spatial; Interpersonal and Intrapersonal Intelligences):

- Fiction and non-fiction books on a variety of topics, in many genres
- Illustrated books
- Books on tape or CD with related book in hard copy
- Books, articles, and papers written by learners
- Cushions for quiet reading or for group discussion
- Word games (e.g., Boggle, Scrabble)
- Creative writing tools (variety of pens, paper, etc.); tape recorder, Dictaphone; magazines that can be cut up for images; story started books and cards
- Yellow pages; other address resource books
- List of addresses and phone numbers of relevant organizations
- Earphones
Illustration/Visual Expression Centre (for encouraging Visual-Spatial and Intrapersonal Intelligences):

- Canvas or drop cloth
- Painting (acrylics, watercolours, poster paints, finger paints) and drawing materials (pens, pencils, coloured chalk)
- Easel, bulletin board, chalk board, drawing boards or tables
- Flat file storage
- Props for still lifes
- Variety of clip-on flood lights, flashlights, coloured gels
- Cameras (35mm, disposable, digital)
- Computer with colour printer and scanner: e-mail and Internet connection
- Maps
- Graphs
- Picture library

Science/Experiment Centre (for encouraging Logical-Mathematical, Naturalist, and Visual-Spatial Intelligences):

- Field guides and science resource books
- Popular science magazines
- Biographies of scientists and inventors
- Magnifying glass, microscope, telescope, or binoculars
- Megaphones, cones and microphones
- Measurement devices (rulers, graduated cylinders, et cetera)
- Bug jars and boxes, plastic containers, for collecting specimens (botanical, entomological, geological, et cetera)
- Teacher-written index card challenges “What happens if you…” (students make predictions, then conduct experiments)
- Computer with colour printer: probe-ware, robotics, spreadsheets, and timelines
• Science-based software (http://www.thirteen.org).

**Music Centre** (for encouraging Musical, Bodily-Kinaesthetic, Interpersonal and Intrapersonal Intelligences):

- Mat on the floor
- Cassette or CD player with headphones (optional: jack so that two students can listen to same music at same time)
- Instruments from a variety of multicultural backgrounds
- Books about famous composers
- Books of poems and stories that students can set to music
- Books of collected lyrics
- Computer with microphone, speakers, and earphones plus MIDI connector and keyboard: music composition software, CD-ROMs designed for music study, CDs for incorporating sound into multimedia presentations
- A “listening” lab area with “sound” bottles, stethoscope, walkie-talkies (http://www.thirteen.org; Armstrong 2000:70).

**Maths Centre** (for encouraging Logical-Mathematical, Bodily-Kinaesthetic, Interpersonal and Intrapersonal Intelligences):

- Puzzles and games that involve logical thinking (looking for patterns, sequences, processes of elimination, inference, et cetera)
- Arithmetic and graphing calculators with instructions on how to solve common types of problems (e.g., percentages, averages, et cetera)
- Maps, charts, timelines, Web sites – vivid examples of how math and logical thinking can relate to social studies, science and language arts
- Computer with colour printer and links to download data from graphing calculators, spreadsheet, graphing, and 2-D and 3-D geometry programs (http://www.thirteen.org).
**Build-It, Paint-It Centre** (for encouraging Visual-Spatial, Bodily-Kinaesthetic, Interpersonal and Logical-Mathematical Intelligences):

- Materials for attaching things to other things (glue, staplers, sewing materials, nails and screws, pins, clips, et cetera)
- Wood, metal, Styrofoam, recycled containers, bottles, cardboard, and tools to work with them
- Variety of writing implements (markers, crayons)
- Variety of fabric scraps
- Modelling clay
- Large rolls of mural paper for scenery backdrops for performances
- Computer with colour printer: developmental level design software and Internet connection ([http://www.thirteen.org](http://www.thirteen.org)).

**Performance Centre** (for encouraging learners’ Visual-Spatial, Bodily-Kinaesthetic and Interpersonal Intelligences):

- Wigs, costumes, shoes
- Washable makeup
- Masks
- Props
- Cassette or CD-player for background music ([http://www.thirteen.org](http://www.thirteen.org)).

**3.5.6 SIMULATIONS IN THE CLASSROOM**

Simulations are activities which encourage and develop Multiple Intelligences. By using simulations, learners are given the opportunity to try out and experiment with real-world actions and pursuits. Younger children often confuse play time and work time, thus they will naturally tend to “play around” with new ideas until they are comfortable with them and fully comprehend them. This is equally true with older children: opportunities for constructive play can be very effective and useful in enabling their understanding of concepts, since it aids in them learning to do something practically instead of simply hearing about it, instilling a deeper understanding of the concept at hand.
Three examples of simulation activities are explained below:

**Role playing**
- To understand the various sides of an event (whether presented in literature, or in a history class), it is often useful to let learners research the issue from a particular viewpoint, then be put in an imaginary situation where they must speak from that point-of-view. Another form of role-play is to allow them the opportunity to “become” a person from history and present a short lecture to others in the class, then answer any questions they have (http://www.thirteen.org).

**Debating**
- Debates and panel discussions encourage learners to think of topics in complex ways. Encourage them to create visual aids to support their arguments (lists, charts, illustrations, et cetera). In mock-trials they can play out an imaginary case and decide if a fictional defendant is innocent or guilty (http://www.thirteen.org).

**Simulation Software**
- Popular CD-ROM programs such as SimCity (and Sims) present complex, open-ended problem-solving situations that learners frequently have to use many of their intelligences to solve (http://www.thirteen.org).

3.5.7 **CLASSROOM PRESENTATIONS**
Classroom presentations usually have the goal of teaching learners who are concentrating on and being taught something new. But this is not the only benefit of presentations. The presenter needs to be fully educated about the topic he or she is discussing, needs to know the personality types of those present in the audience, must have interesting ways in which to give the presentation, and should have categorized and systemized the information in an easy to
understand format. Presentations can be in simple plan, such as merely addressing the class, up to the point of giving highly complex, cooperative lectures, using the Internet and PowerPoint presentations. Young children are very competent users of the internet and PowerPoint presentations, so there is no reason to limit such presentations to high school learners and university learners.

Ways in which presentations can be used to enhance the development of Multiple Intelligences include the following:

**Write:**
- Poems
- Short plays
- Screenplays
- Song lyrics
- Journals
- Diaries
- Memoirs
- Interviews
- Newspaper or newsletter
- An original advertisement
- New ending for story or song
- “what if…” thought experiment (http://www.thirteen.org)

**Make / Invent / Design / Draw**
- Posters
- Cartoons
- Timelines
- Models
- Chart
- Map
• Graphs
• Paintings (with explanations similar to museum exhibits)
• Board game
• Multimedia presentations (http://www.thirteen.org).

**Figure Out / Analyse**

• Solutions to problems in your school or community
• Mathematical formulas to explain a problem, or pose a solution
• Categorization method for some plants or animals in your area based on careful observation (perhaps a small collection, or homemade “museum”)
• A plan for a scavenger hunt
• A treasure hunt (in which clues involve vocabulary from the topic)
• Collect objects in nature
• The night sky, food chain, water cycle, or other science topic
• Local, national, or international environmental concern
• Create simulations (http://www.thirteen.org).

**Perform / Present**

• A play
• A concert
• Role-play lecture (such as a well-known person from history)
• A dance based on literature or historical event
• Collected songs about a topic from an era (http://www.thirteen.org).

**3.6 THE STRENGTHS OF MULTIPLE INTELLIGENCES**

Those proficient and accomplished in the use of Multiple Intelligences theory in their classroom practice agree that it holds the following advantages for their learners:
3.6.1 CAPABLE OF WORKING MULTIMODALLY
Learners are able to incorporate a minimum of three to five of the Multiple Intelligences in presentations, verbal presentations, and reports (http://www.newhorizons.org).

3.6.2 BETTER CONCENTRATION
Those who are intelligent in the Bodily-Kinaesthetic Intelligence benefit from being able to move from one activity centre to the other every fifteen to twenty minutes. They are able to focus and perform better (http://www.newhorizons.org).

3.6.3 LEADERSHIP QUALITIES
Using Multiple Intelligences tends to bring out leadership qualities in the majority of learners. They take on a natural leadership role when they are in situations where they are participating in activities in which their intelligence is strongest (http://www.newhorizons.org).

3.6.4 PARENTS NOTICE POSITIVE DIFFERENCES
Parents note that the behaviour of their children improve, they have far more positive attitudes toward school and their homework, and school attendance has improved in schools that implement Multiple Intelligences (http://www.newhorizons.org).

3.6.5 BETTER RETAINING OF INFORMATION
Learners retain far more information in classroom situations where music and movement is incorporated into daily classroom activities (http://www.newhorizons.org).

3.6.6 EDUCATOR ROLE
Educators find themselves working with their learners instead of for them; they discover what the learners discover, they investigate what the learners investigate. They find themselves far more satisfied educating through this
interactive method, and become aware of their own excitement for and fulfilment from teaching in this way. They also become far more creative and multimodal, and notice and experience development and progress in themselves, not just in the learners (http://www.newhorizons.org).

3.6.7 STUDENTS THRIVE IN NEW ENVIRONMENT
Learners continue to improve and function more effectively in these “unconventional and interesting” classroom situations (http://www.newhorizons.org).

3.6.8 MANY WAYS TO DISPLAY INTELLIGENCE
Both educators and learners comprehend the idea that “clever” can be more than excelling merely in Mathematics and in Languages. There are many other ways to display one’s intelligence (http://projects.coe.uga.edu).

3.6.9 MORE INVOLVEMENT
By having learners create work that can be exhibited to family and friends, active participation by community members is encouraged (http://projects.coe.uga.edu).

3.6.10 FOCUS ON STRENGTHS
Multiple Intelligences enables learners to focus on the Intelligences that they are strong at, to strive to improve those Intelligences that they are weaker at, and to take pride in both strong and weak areas of their Intelligence (http://projects.coe.uga.edu).

3.6.11 ALL INTELLIGENCES ARE EQUAL
Multiple Intelligences theory respects all forms of intelligence as of equal value. Any activity, be it dancing or drawing, is considered as vital as mathematics and writing is (http://projects.coe.uga.edu).
3.6.12 **PROBLEM SOLVING**
Learners develop their abilities to solve everyday difficulties and troubles in different ways ([http://projects.coe.uga.edu](http://projects.coe.uga.edu)).

3.6.13 **AUTHENTIC LEARNING**
Educators are now able to offer their learners lessons based on their particular and individual Intelligences and for their benefits, which in turn causes the learners to be far more engaged in the lesson ([http://www.thirteen.org](http://www.thirteen.org)).

3.6.14 **SELF-ESTEEM**
By giving learners the opportunity to show-off their strongest Intelligences, they grow immensely in self-esteem and are encouraged to continue to further strengthen and work at their various Intelligences ([http://www.thirteen.org](http://www.thirteen.org)).

3.6.15 **AID IN UNDERSTANDING**
Teaching through Multiple Intelligences enables learners to comprehend and appreciate their Intelligences and the Intelligences of all other individuals ([http://www.cortland.edu](http://www.cortland.edu)).

3.6.16 **STRENGTHS AND WEAKNESSES**
Learners are given the opportunity to work on not only their strengths, but also endeavour to better their weaknesses ([http://www.cortland.edu](http://www.cortland.edu)).

3.6.17 **CONFIDENCE**
Figuring out their strengths and weaknesses give learners confidence to start taking chances and risks in all areas of their lives ([http://www.cortland.edu](http://www.cortland.edu)).

3.6.18 **UNFORGETTABLE LEARNING**
Teaching through Multiple Intelligences helps learners retain information for longer periods of time ([http://www.cortland.edu](http://www.cortland.edu)).
3.6.19 **AIDS LEARNERS IN BECOMING EMPOWERED AND IN FINDING BRIDGING TECHNIQUES AND STUDY SKILLS**

MI techniques are used in classrooms to help make educational connections into problematical notions and ideas. MI related methods are adaptable and can be used to help learners who struggle to accomplish stages of unconnected learning. Educators encourage learners to use more than one Intelligence in order to develop a better understanding of the concept at hand (http://www.newhorizons.org).

3.6.20 **A TOOL FOR UNDERSTANDING SELF AND OTHERS**

Multiple Intelligences theory gives people the opportunity to see themselves and others in a different light, very often from a more meaningful, compound point of view. Because of this change of mindset, educators have noticed an improvement in their learners' self-esteem. They take more pride in what they do (http://www.newhorizons.org).

3.6.21 **TAPS INTO NATURAL TALENTS – HELPING CREATE A STATE OF “FLOW”**

By creating educational happenings centred on inborn talents and skills, educators are most likely to increase the chances where learners can practically become engaged in activities that are pleasing, gratifying and satisfying. Experiencing such activities can be extremely inspiring for the learners (http://www.newhorizons.org).

3.6.22 **LEARNERS DEVELOP INCREASED RESPONSIBILITY, SELF-DIRECTION AND INDEPENDENCE**

Learners show greater self-direction and become far more motivated. They become competent at creating their own assignments, collecting information and putting together presentations (http://context.org).
3.6.23 **DISCIPLINE PROBLEMS ARE SIGNIFICANTLY REDUCED**
Learners who are identified as having behavioural problems very often show positive changes in their behaviour. Certain learners go from being troublemakers, to making valuable inputs in group work. At times they even take up helpful leadership roles, which would never have been expected from them initially ([http://context.org](http://context.org)).

3.6.24 **ALL LEARNERS DEVELOP AND APPLY NEW SKILLS**
When first confronted with activity centres in classrooms, learners tend to have only one centre as their favourite. Within a short period of time, however, they have been shown to branch out and favour three to four of the centres. Eventually they perform well and enjoy all of the various activity centres, thus feeling skilled and competent in all of the different activities that they take part in. The learners are also eventually able to make multimodal presentations that include songs, poems, games, visuals and group work ([http://context.org](http://context.org)).

3.6.25 **COOPERATIVE LEARNING SKILLS IMPROVE**
Much of the activity centre work is shared amongst learners, and thus they are encouraged to become proficient at listening, assisting each other, distributing leadership in various doings, helping in group changes, and bringing in new classmates into various projects. The learners learn to respect one another and also to value and make use of the various strengths of their fellow classmates ([http://context.org](http://context.org)).

3.6.26 **ACADEMIC ACHIEVEMENT IMPROVED**
Research done in the United States has shown that learners exposed to the MI approach consistently achieve test scores higher than state and national averages in all regions, and that they generally maintain these good scores throughout the year. The manner in which they retain information was shown to be mainly through musical, visual, and kinaesthetic means, thus providing significant proof of the efficacy of these traditionally underrated alternative
learning modes. Learners previously known to be weak also showed a significant improvement through such alternative forms of learning (http://context.org).

3.7 THE WEAKNESSES OF MULTIPLE INTELLIGENCES

Although there are many who believe that Gardner’s Multiple Intelligences theory offers innovative and very meaningful approaches to education, there are also those who disagree. The main points of criticism raised by Gardner's opponents are summarised below:

3.7.1 MI THEORY IS NOT A NEW IDEA
Those who critique this theory argue that Gardner’s work isn’t revolutionary – that which he refers to as Intelligences are key capabilities that instructors have always recognized (http://www.cortland.edu).

3.7.2 THE THEORY ISN’T WELL DEFINED
Some opponents of the theory question whether the amount of Intelligences will simply continue to multiply (Naturalistic Intelligence was recently included, and now there is mention of the possible addition of Existential Intelligence). For these critics aptitudes such as Bodily-Kinaesthetic or Musical ability should more precisely be seen as skills or talents, rather than as forms of Intelligence (http://www.cortland.edu).

3.7.3 IT IS CULTURALLY EMBEDDED
This theory states that the culture that you are from has an influence on establishing the strengths and weaknesses of your Intelligences. Those who criticize this theory, however, believe that intelligence is revealed precisely in those circumstances where a person is required to deal with an unknown undertaking in new surroundings (http://www.cortland.edu).
3.7.4 FUNDAMENTALLY AMBIGUOUS
There are three fundamental aspects of MI theory which critics consider ambiguous: (1) There are many separate, logical, cognitive elements called intelligence, (2) These intelligences interrelate, functioning on one another's contents, (3) Each of the intelligences consists of sub-intelligences that can function separately. Critics believe such statements cannot be made because it is impossible to determine when, for example, different intelligences perform individually or cooperatively, or if these so-called sub-intelligences of the intelligences will work together or independently (http://www.cortland.edu).

3.7.5 UNFALSIFIABLE
Because of the confusion caused by statements such as the above, and because it cannot be proven either true or false, it is very problematical to confirm or refute the theory (http://www.cortland.edu).

3.7.6 LACKS EMPIRICAL SUPPORT
Certain psychologists, such as George Miller\textsuperscript{19}, are of the opinion that MI theory is merely based on a “feeling” and “hunch” instead of having facts and evidence as the basis for its claims (http://www.cortland.edu).

3.7.7 CONTRADICTS SOME AVAILABLE EVIDENCE
More recent work in this field suggests that Gardner’s eight Intelligences should more accurately be thought of as mere thought processes or patterns rather than as forms of intelligence (http://www.cortland.edu).

3.7.8 NO WAY TO ACCESS MULTIPLE INTELLIGENCES
Although some scientific work has been initiated in order to provide greater factual evidence for Gardner’s MI theory, for most of these forms of intelligence mechanisms have yet to be developed according to which they can be gauged or calculated. In addition to this, the measurement methods that have been

\textsuperscript{19} George A. Miller has provided two theoretical ideas that are fundamental to cognitive psychology and the information processing framework
developed thus far are mostly extremely expensive and complex and are therefore not likely to be readily adopted (http://www.cortland.edu).

3.7.9 THE CRITERIA IS NOT ADEQUATE
Critics of MI Theory argue that there are vital issues around the measures that Gardner uses. There are many questions about the different criteria, and even Howard Gardner himself has acknowledged that there is a degree of prejudiced judgement involved (http://www.infed.org).

3.8 CONCLUSION TO THIS CHAPTER

This chapter has attempted to provide an overview of Gardner’s Multiple Intelligences theory, to explain the nature of each of the eight Intelligences in greater detail, and to consider the means by which these can be used by educators in the classroom in order to enhance learning. It has also provided a succinct overview of the views of both the proponents and the detractors of this theory. Whether or not one is inclined to agree with Gardner’s beliefs in all respects, I am of the opinion that Gardner’s work nevertheless remains extremely valuable in highlighting the need to acknowledge different forms of intelligence and different forms of learning. As music educator I am of course particularly drawn to the prominent position that Musical Intelligence enjoys in this theory - that it is acknowledged as a unique way of knowing the world and that the benefits it holds for the further development of other forms of Intelligence are recognised. I also believe that Gardner’s insights need not be adopted at the expense of other educational philosophies or curriculum approaches. In my opinion these insights can be used as enrichment and enhancement of such. In the forthcoming, final chapter of this treatise, I shall consider such enrichment and enhancement from the point of view of South Africa’s RNCS for the GET Band, with particular reference to Gardner's Musical Intelligence and the RNCS Arts and Culture Learning Area.
CHAPTER 4
MEETING THE CHALLENGES TO CURRICULUM
IMPLEMENTATION AND MUSIC EDUCATION IN SOUTH AFRICA

In this chapter, I examine some of the problems experienced in curriculum implementation in the Arts and Culture Learning Area in South Africa. My focus is on the extent of integration in this curriculum, and on the state and the extent of music education in particular. I reiterate the vital importance of music education and why the DoE should be encouraged to make it possible for all schools to place far greater emphasis on this aspect of learning than is currently the case, and consider some of the ways in which Gardner’s MI Theory sheds light on such matters.

An empirical survey was conducted by Anri Herbst, Jacques de Wet and Susan Rijsdijk from the University of Cape Town amongst general class teachers from 450 primary schools in the Western Cape Peninsula in the early 2000’s, in order to investigate the state of implementation of the (then) new Arts and Culture Learning Area in the schools in question, and the state of music education in particular. The following three research questions provided a framework for the 96 different questions put forward in the questionnaire:

- In what form does music education take place?
- What is the profile of the educators who teach “class music” in the Arts and Culture Learning Area?
- What are the problems surrounding the implementation of music education? (Herbst, de Wet & Rijsdijk 2005:265).

The study was motivated by the findings of an earlier investigation in 1986 (8 years before our first democratic elections in 1994) conducted by the Committee of Heads of University Music Departments in South Africa in order to understand
the dismal state of affairs regarding music education in South Africa. The end result was a six-volume report. The two most important areas of alarm were (1) that music teachers felt they were insufficiently trained, and (2) that the provision of music education was extremely erratic in the majority of the schools. The study also showed that the educators only taught parts of the syllabus with which they were most comfortable. Some schools made no time for class music at all, whilst others used the time that was set aside for class music on non-music activities. Reasons for this were that there were not enough teaching materials (specifically for music), teacher confidence and self-esteem was dwindling, and the level of teaching and education in the area of class music was dismal (Herbst, de Wet & Rijsdijk 2005:263).

Table 4.1. Music Concepts and Activities Covered by Educators

<table>
<thead>
<tr>
<th>Music Concepts and Activities</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Singing</td>
<td>151</td>
<td>65</td>
</tr>
<tr>
<td>Instrumental playing in small groups or ensembles</td>
<td>54</td>
<td>23</td>
</tr>
<tr>
<td>Movement</td>
<td>49</td>
<td>21</td>
</tr>
<tr>
<td>Theory of music</td>
<td>31</td>
<td>13</td>
</tr>
<tr>
<td>Listening and general music knowledge</td>
<td>30</td>
<td>13</td>
</tr>
<tr>
<td>Linking music with other skills in the Arts and Culture Learning Area</td>
<td>29</td>
<td>12</td>
</tr>
<tr>
<td>Linking Arts and Culture with other Learning Areas</td>
<td>28</td>
<td>12</td>
</tr>
</tbody>
</table>

Herbst, De Wet and Rijsdijk based their research on the hypothesis that factors impacting negatively on the state of music education in the above study of 1986 had not changed for the better since the introduction of C2005 and the Arts and Culture Learning Area, and ultimately concluded that their hypothesis was indeed correct. Table 4.1 above indicates the types of musical learning opportunities implemented by the 233 educators in the GET phase who responded to their questionnaire, and the number of teachers who indicated that they include each of these learning opportunities in their Arts and Culture classes or in broader musical programmes in their schools, also expressed in each case as a percentage of the group as a whole. Of these, 35% indicated that no music is

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20 Reproduced from Herbst, de Wet & Rijsdijk 2005:268
taught in their school at all (despite the fact that Arts and Culture is a compulsory Learning Area), 65% implemented practical music making in the form of singing, whilst in only 23% of cases was instrumental music taught. There was a marked drop in their inclusion of the remainder of the learning opportunities, with least attention (12%) given to integration, both within the different components of the Learning Area itself and between Arts and Culture and the remaining Learning Areas of the curriculum.

The four most significant challenges that arise from the research of these authors, as well as from other studies conducted in this regard, are discussed below.

4.1 LACK OF QUALIFIED EDUCATORS

73% of the respondents in Herbst, De Wet and Rijsdijk’s survey were given music education in primary school and 51% continued music into high school. 11% were part of instrumental ensembles in primary school, 15% in high school, and at least 50% of those who responded sang in school choirs or singing groups in primary and high school. Proficiency on a musical instrument is a specialism that takes at least six years of training and practice to cultivate. Educators with less training than this are not likely to be able to usefully apply or transfer such skills in the classroom. These researchers found that only 10% of their respondents received piano lessons for between 5 and 6 years, 13% for up to 9 years, a mere 5% took recorder lessons for up to 4 years, and only 2% of all of the respondents were exposed to African marimba playing (Herbst, De Wet & Rijsdijk 2005:270). As regards their tertiary training, a meagre 7% of the educators were found to be specialised music teachers, while the remaining 93% (211/233) were general class teachers. Furthermore, despite their lack of training in this specialised field, 75% of the latter group were being required to teach music in the Arts and Culture Learning Area because there were no specialised
music teachers available at their schools. Notwithstanding the fact that most class educators in the GET phase in South Africa cannot play a musical instrument, the curriculum expects them to have the musical abilities of someone who has specialised in music and who is fully capable of meeting these requirements. General class educators in the Foundation and Intermediate Phases are required to teach the complete contents of the Arts and Culture Learning Area, which contains the four expressive arts – music, drama, dance and visual arts. In addition to this, they must teach Craft, Design, Media and Communication, Arts Management, Arts Technology and Heritage. For this their current university training as GET Band educators is entirely inadequate. Ever since 1994, the DoE has greatly decreased the amount of educator training colleges where there were once rather large music departments. Now only a handful of specialists in the field remain at university education faculties across the country, not nearly enough to take on between them the task of retraining the entire body of Foundation, Intermediate and Senior Phase GET band educators in this country.

The problem of poorly trained educators is particularly acute in schools from the previously-disadvantaged communities of South Africa, where school governing bodies cannot afford to bring in outside expertise in order to implement specialised extra-curricular music programmes from which the Arts and Culture Learning Area could also benefit. This fact directly contravenes the rationale behind the curriculum of this Learning Area, which states inter alia that it is aligned with “the values of democracy according to the Constitution of South Africa” and therefore will provide equal access to all South African learners “as part of redressing historical imbalances”. Furthermore, that learners should not merely passively receive such learning but should be given opportunities to be "active participants in it" (DoE 2002b:4). A survey conducted by Renata Alley to determine the state of music education in the Arts and Culture Learning Area at three previously-disadvantaged schools in Port Elizabeth confirms this fact. DoE

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21 The same would apply to the other three art forms that make up part of the Arts and Culture Learning Area.
in-service teacher-training workshops, arranged in order to address this very problem, were found to be wholly inadequate. A series of workshops can hardly make up for the total lack of prior learning in a field as specialised as music, not to mention the other three art forms that also form part of this curriculum. Educators also indicated that they were unable to attend the workshops in question because their principals would not release them from their duties, or because there were other workshops on “more important” Learning Areas scheduled for the same day that they were obliged to attend. In some cases the teaching of this Learning Area fell to any educators who happened to have free times on their timetables (Alley 2007:94-113).

The lack of specialised training in a field such as music cannot but have disastrous consequences on the teaching-learning experience in the classroom. In both surveys discussed above, educators reported their general feelings of inadequacy and fear and their desperate need for additional training. Their only way of coping, in the interim, was by cheating their way through the system in some way. In some cases they opted to approach the curriculum selectively by concentrating only on those parts of it they felt they could manage, while completing ignoring the rest, and in other cases they opted to ignore the curriculum entirely and to use the time for other more “constructive” activities, wholly unrelated to the Arts and Culture curriculum. Needless to say, the attitude of learners to Arts and Culture in general, and to music in particular, suffers greatly as a result (Herbst, De Wet & Rijsdijk 2005:270-273; Alley 2007:94-113).

4.2 LACK OF INFRASTRUCTURE

The survey of Herbst, De Wet & Rijsdijk (2005) reports that teachers find the curriculum itself very disorganised, causing confusion for both educator and learner. It underestimates the competence of the learner, overestimates the abilities of the educator, and expects far too much from the general class teacher. In addition it reports a desperate need for more resources (money,
musical instruments, teaching materials and aids, collections of music and CD’s) to be made available for each and every school in South Africa. Ideally, in order to ensure successful implementation of the curriculum, each school should have an expert educator in each of the four art forms – music, drama, dance and visual arts (Herbst, De Wet & Rijsdijk 2005:273-275).

Respondents in Alley’s survey report on the general lack of subject guides for educators, mentoring systems, or any form of interaction amongst fellow Arts and Culture educators. There are far too few workbooks and textbooks available for both educator and learner, which in turn dramatically affects the quality of teaching and learning (Alley 2007:94-113).

4.3 MUSIC AS A COMPONENT OF A BROADER LEARNING AREA

For Howard Gardner, music forms one of eight ways in which we may come to know the world. In other words, if musical learning is neglected or ignored, the human race loses 12.5% of its potential to know its world. The benefits of this form of Intelligence have for many years been extensively documented and debated, and include a whole range of emotional benefits, physical benefits and intellectual benefits.

Emotional benefits lie especially in the ability music has to develop so-called “EQ” (rather than “IQ”), providing structured means for healthy forms of self-expression, self-discipline and team work. Children who play in an orchestra or sing in a choir learn to realise that they are not the only person who counts, and that they have to learn to work with one another in order to achieve the desired end result. They learn to listen to the musicians next to them, to play or sing together with them, not to slow down or speed up ahead of them and not to play louder than them. They learn the value of being unselfish, that there are many
people in the group that are just as important as they are, and that in groups like this there is no place for egotism or vanity. The better they learn to cooperate, the more satisfying the end result will be. In the 1980’s the Gemeinhardt Company in the United States of America conducted surveys to measure the benefits of school music band programmes, confirming that these ‘provide educational benefits not found in other classrooms’ and that such involvement ‘builds self-esteem, self confidence, and a sense of accomplishment’ in the lives of the young musicians in question (http://www.caroljoyevans.com).

Physical benefits include the effects music has on the development of the brain and the physique. In a study conducted by Dr Timo Krings of the University Hospital in Aachen in Germany, a group of pianists and non-pianists of the same age and sex were tested on their ability to perform complicated finger movements. While doing these movements, their brains were scanned using “functional magnetic resource imaging” (fMRI) techniques. The non-musicians performed the movements just as correctly as the pianists, but there was more brain activity in the non-musicians. These tests showed that musicians’ brains were more adapted to making learned movements and did so with less difficulty (http://www.menc.org/information/advocates/facts/html). Research shows that the planum temporale in the brains of musicians is bigger in size than in those of non-musicians. The planum temporale is a part of the brain that is linked to reading skills. Musicians also have a thicker corpus callosum, which is a flat bundle of nerves that connects the left and right brain hemispheres. This was especially prominent in those musicians who started their musical training before age 7, suggesting that this area had become gradually enlarged by means of practising and through years of experience (http://www.menc.org/information/advocates/facts/html).

Across all cultures of the world, music naturally invites bodily movement, thus stimulating physical co-ordination, control and other forms of Bodily-Kinaesthetic Intelligence, as discussed in the previous chapter of this treatise. The benefits of
music therapy for the physically disabled are also well known. In the case of cerebral palsy sufferers, for example, music therapy can stimulate physical relaxation, help with coordination of the muscles, and also assist in speech therapy. It has been shown that music has similar effects to medicine, in that it can be used to either trigger desired or repress undesired reactions in the body (Cundiff, 1955:588). By requiring them to play on specially chosen instruments, therapists are able to target specific parts of their patients’ bodies, such as to improve controlled coordination in their hands and fingers by playing on a piano or a xylophone, and to correct deformities of their mouths or chins by playing on certain woodwind instruments. Children suffering from speech problems like stuttering are also helped a lot through music, by using the same techniques and methods that are used to teach singing, like breathing deeply and “vocalizing on the vowels”. Wind instruments are particularly effective here because they help the children to breathe correctly and to “blow outward” while they speak and pronounce their words (Cundiff 1955:589).

Intellectual benefits of music education include its benefits in the development of general IQ, but also more specifically in the fields of mathematics and literacy. This was also discussed in the previous chapter of this treatise. For example, the National Education Longitudinal Study in the United States of America in 1988 indicated that students who were involved in music received far more academic awards and achieved higher overall examination results than those students who didn’t take part in any kind of music. They also received on average more A’s, A/B’s and B’s than non-music students (http://www.menc.org/information/advocates/facts/html). In the case of music and mathematics, it is the ability that a musician develops to make patterns out of ‘random’ sounds, to think in abstract terms, that can later decide how well s/he will do in mathematics (http://www.articlesofnote.com/Article/The-Link-Between-Music-and-Math/172). There have also been numerous surveys conducted in the United States of America proving the benefits of Musical Intelligence for the development of reading and language skills. Tests conducted at the University of
Southern California, for example, showed that there is most definitely a relationship between learning to read music and learning basic verbal reading skills. The results of these tests showed that children in the first and second grades that received music lessons were far better at reading than those children who didn’t receive music lessons (Herrold 1991:5). Other tests show that the longer the period of musical training, the better the verbal memory of the students in question (http://www.ericdigests.org/2004-3.cognitive.html).

For these and other benefits to come to fruition in the lives of learners, however, the kind of music education that is required is by no means the kind proposed in the Arts and Culture Learning Area of South Africa’s C2005. Apart from the gross lack of specialised music teachers and of appropriate infrastructure in all schools (funding, musical instruments, books, etc.), previously discussed, the curriculum itself is simply not designed that way. At best it promotes passive ‘music appreciation’ rather then active participation in music. It admits, on the one hand, that the four art forms it attempts to combine into one programme – music, art, dance and drama – each present “a different way of knowing and expressing” and that it would be “unreasonable to expect a learner to achieve equal proficiency in skills and knowledge in all art forms” (DoE 2002c:9), but then insists, on the other hand, that the focus of the Assessment Standards for this Learning Area must be “on Arts and Culture as a holistic Learning Area, not on the four discrete art forms” (DoE 2002c:7).

The only way to deal with this impasse, it is further suggested, is by “clustering standards into modules around similar skills and knowledge” (DoE 2002c:7). And the only way, it seems to me, that it would be possible to do this, would be to do away with all that is subject specific. However, none of the benefits previously discussed can be achieved through music unless musical training is first and foremost subject specific. Only after a firm disciplinary base has been established does it become possible for the benefits of musical proficiency to spill over into other forms of learning, such as generic aspects of emotional development, physical development and intellectual development. The
progression that is needed for such benefits to occur is therefore for learning to progress from the specific to the generic. This directly opposes the rationale of the Arts and Culture Learning Area Statement which proposes instead that learning should move from the generic to the specific:

The approach towards the Arts in the Learning Area Statement moves from a broad experience involving several art forms within diverse cultural contexts, towards increasing depth of knowledge and skill by Grades 8 and 9 (DoE 2002b: 5).

Although the curriculum allows for some form of specialism within the Learning Area in Grades 8 and 9 in order to prepare learners for subject choices in the Further Training and Education (FET) Band in grades 10 to 12 (DoE 2002c:9), this is too little too late. Unless specialised training begins at a much younger age, the chances that schools will succeed in adequately preparing learners for “employment […] and the world of work” (DoE 2002c:6) as far as music is concerned is little to none.

Not only is the design of the curriculum problematical, but the amount of time set aside for Arts and Culture training in the RNCS is wholly inadequate if any meaningful progress in knowledge and skills development is to be made. In the Foundation Phase no specific time is set aside for this Learning Area at all, whereas in the Intermediate and Senior Phases of the GET band a mere 8% of teaching time is recommended for Arts and Culture (DoE 2002c:18).22 Considering the amount of work that must be covered in this Learning Area, the actual time available for music is probably less than 2%. In addition, if the more recent proposed revisions to the RNCS are carried through, the days of the Arts and Culture Learning Area in the Intermediate Phase (grades 4, 5 and 6) will be numbered and General Studies (Creative Arts, Physical Education and Religious and Moral Education) (DoE 2009:65) will be put in its place in order to make

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22 See earlier reference to the DoE’s recommended divisions of the teaching week in chapter 2 of this treatise.
more time for tuition in languages, which means that the quality of music education will be even further compromised.

Schools who are affluent enough to do so therefore reach a compromise between these two opposing approaches of philosophies of education by catering for the generic ‘music appreciation’ approach in the Arts and Culture curriculum, whilst simultaneously catering for the development of specialised subject-specific skills and knowledge from the very outset by means of extra-curricula music programmes involving individual and group tuition in musical instruments, school choirs and bands, music theory lessons, and the like. The tragedy of this situation, of course, is that this compromise is reserved for the small handful of children whose parents are able to pay for it. The majority of South African children are still denied access to music education, despite the fact that one of the most fundamental principles underlying C2005 is that it “is built on values very different from those that underpinned apartheid education” (DoE 2002b:3).

4.4 THE CHALLENGE OF INTEGRATION

In the context of the material presented in Chapters 2 and 3 in this treatise, juxtaposing MI Theory and OBE, integration may have more than one meaning. For Outcomes-Based Education and the RNCS in South Africa, integration essentially means two things:

- Firstly, integration within the Arts and Culture Learning Area would refer to the development and assessment of “skills, values, attitudes and knowledge” that is deliberately designed to combine the four art forms, and also to highlight the perceived difference between African art forms (where song, dance, drama, poetry and/or design are all integral parts of cultural occasions) and Western art forms (which by comparison are perceived as more “discrete”) (DoE 2002b:7).
• Secondly, integration is encouraged insofar as “Learning Outcomes and Assessment Standards can be linked across Learning Areas, especially in the Foundation and Intermediate Phases” (:9). The Learning Outcomes and Assessments Standards for the Arts and Culture Learning Area were discussed in detail in chapter 2 of this treatise. As to the means by which these should be integrated across Learning Areas, the curriculum merely states that “there are many natural and possible links” and “these links need to be explored and developed within learning programmes in each phase” (:8). In the case of the Foundation Phase, however, some concrete examples of integration are given (:11), also previously discussed in chapter 2 of this treatise.

In the surveys conducted by Herbst, De Wet & Rijsdijk (2005) and by Alley (2007), both groups of teachers interviewed indicated that integration was the curriculum imperative they found most problematical to deal with\(^\text{23}\).

In the context of the RNCS, therefore, integration is very much focussed on an understanding of culture in a holistic (and thus generic) way. Integration thus directly opposes the development and assessment of subject-specific knowledge and skills. In contrast to this, integration understood from the point of MI Theory has a different emphasis altogether. Educators who adopt MI Theory as an educational approach use integration precisely to promote subject-specific skills and knowledge, rather than to focus on generic understandings of cultural expressions. Gardner’s approach to an integration of Musical Intelligence with other forms of Intelligence is discussed in greater detail below.

• **Recognise the Rightful Place of Music in the Curriculum**

Mindy Kornhaber, Edward Fierros, and Shirley Veenema wrote a book called “Multiple Intelligences – Best Ideas from Research and Practice” based on the

\(^{23}\) See again Table 4.1 for the very low percentage of teachers who indicated that they implemented integration within the Arts and Culture Learning Area itself, or between this and other Learning Areas of the curriculum.
Research activities of Harvard University’s “Project Zero”; a study was lead by Dr. Howard Gardner to help teachers successfully implement Multiple Intelligences into their schools. They conducted research in over 40 schools in the United Stated of America (at all of which an MI approach to education has been adopted) and concluded that music education and the arts play an exceptionally important role in the schools that they had studied. Many of the schools that they studied had wide-ranging arts curriculums. The Russell Elementary School in South Central Los Angeles provides lessons in Suzuki violin, band, art and dance. This school, in addition to all of these other cultural activities, created an original opera using a play that the learners had written, stage sets that they built, created and painted, music that they composed and assisted to record. Another example is that of the St. Augustine School of the Arts in New York. All of the learners in this school have the opportunity to take part in music and arts activities. The vast majority of the learners that attend this school come from very underprivileged and uneducated families, but despite all of this, this school is one of the top academic schools in America (Campbell, Campbell & Dickinson 2004:130; Kornhaber, Fierros & Veenema 2003:25-27).

- **Integrate Music with Other Subject-Specific Learning Experiences**
  Because of the generic emotional benefits, physical benefits and intellectual benefits that ensue from a well-developed Musical Intelligence, it can be integrated with great success into other subject-specific learning experiences in the classroom. These were discussed at some length in Chapter 3 of this treatise, and are summarised below.

  *Use the Emotional Benefits of Music for the Creation of a Positive Learning Environment*

  Music can provide a friendly and warm ambiance as learners enter the classroom in the mornings. It can settle learners down after partaking in a session of physical activity, it can revive them, and it also has the ability to decrease any

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24 See, for example, Campbell (1989)’s implementation of different Activity Centres or Learning Centres in the classroom, discussed in section 3.5.5 of this treatise.
pressure and strain that they might be experiencing. Campbell, Campbell and Dickinson (2004) report the experiences of a certain school principal who struggled to find constructive ways of improving the discipline in his school. He began to play calm, soothing music in the school’s passages and found that learners' behaviour improved considerably. Since then music in the passages has become a norm in that school and subject music has also come to play a far more significant role in his school’s curriculum (Campbell, Campbell & Dickinson 2004:132). Investigations have shown that having music play in the background improves our ability to learn (Campbell, Campbell & Dickinson 2004:138). In order for this to happen, background music in the classroom should never be allowed to become a distraction. Educators should therefore consider the following points before deciding to implement music in this way.

- The musical apparatus that is utilised should be of a high-quality and must be appropriately situated in the classroom
- Good quality sound systems do not often exist in schools (as the budget doesn’t allow for it, and the money is usually spent on “more important” equipment), but it is vital that teachers are aware of the fact that poor quality sound equipment can be extremely off-putting and annoying for learners. Educators should try and come up with ways and means to find decent quality equipment
- Educators should expose their learners to a wide variety of musical styles, such as contemporary, popular, baroque, classical, romantic, modern, impressionist music played by soloists, orchestras, bands, chamber ensembles
- It is imperative to decide when and how the music should be played in the classroom. Effective times would be while learners are leading into the class, during reading times, individual work times, study sessions, and during tests and examinations
- Music could hinder oral tasks, and it could also distract some learners continuously, so it is wise to use music as a background effect only at appropriate times, such as linking subjects or activities
• If the educator wants to speak while the music is still playing, the music’s level must be decreased so that the focus will be on the learners and not the music.

• It is important to confer with one’s learners to see how they feel about the music being played and to see if they have any interesting and helpful suggestions (Campbell, Campbell & Dickinson 2004:133).

*Use the Physical Benefits of Music for the Creation of a Positive Learning Environment*

Music has an undeniably strong influence on a variety of physical actions such as running, aerobics, or even typing. The beat and patterns in the music could cause coordination, evenness, and tempo to be strengthened in a manner that is pleasant. In the case of youngsters, running, walking, skipping and strutting improves their sense of keeping regular time and beat and also enhances poise and refinement. Music can help make somewhat tedious activities and routines more satisfying (Campbell, Campbell & Dickinson 2004:137).

*Use the Intellectual Benefits of Music for the Improvement of Language Skills*

Using music in order to assist learners learn to spell new words makes it pleasant and also quickens the learning process. An example is given of two students who had problems with spelling, but both played the piano. It was suggested that the students put a label on each of the piano keys (with the letters of the alphabet); so that they could “play” the words that they were trying to learn how to spell. After a while, the learners could recall what the words sounded like and could thus write its equivalent letters. Their spelling dramatically improved, but then the learners started initiating innovative ideas as to how to “sound” texts that were put to music. For example, they would play each of their classmate’s names on the piano and also put sentences together, and as a result the entire class was subjected to the pleasant way in which music and language could be linked. In addition to the above mentioned example, words could also be spelt via chanting in regular beat, while putting inflection on particular letters that are often overlooked or muddled up (Campbell, Campbell & Dickinson 2004:137).
For teachers wanting to improve reading skills through beat, pulse and regularity, the following methods are suggested by Sheila Fitzgerald from Michigan State University:

- Support children to sing daily. The songs that the learners sing should be a part of their curriculum, their surroundings or even songs that they have composed themselves.
- Once the learners know the words of the songs, then they are equipped to see the actual words written on the blackboard or whiteboard. At first, the students experience enormous enthusiasm upon seeing the words for the first time. Their acquaintance with the words facilitates the changeover to recitation and reading.
- Learners might move on to reading separate words and are able to recognize specific words that might be written on the board.
- Learners could then be given song books which they can use to aid them to learn the words of the song. The learners could follow the lyrics with their fingers whilst they are either reading or singing the song. They can also help their fellow learners who are struggling to follow and read the words.
- Once the learners have read and sung a specific song on numerous occasions, they may be able to write some of the lines of the song from memory. Nursery songs and easy rhymes work particularly well for this particular learning activity (Fitzgerald in Campbell, Campbell & Dickinson 2004:138).

Songs also function as wonderful methods of assisting learners to improve their verbal and written language proficiency. Campbell, Campbell & Dickinson (2004) highlight the work of Tim Murphey, a leading educationalist in the United States of America, who in 1992 made a study of the lyrics of a whole range of pop songs and discovered that they were rather helpful in studying language, in this case, English. The majority of the songs that he examined used informal and
relaxed language, made use of simple grammatical constructions, and the words tended to be repetitive. In songs, the words are usually sung at a slower pace than when spoken, and because of this the learners tend to comprehend the meanings of the words far easier. There is a diversity of approaches to listening, speaking, writing, and reading that can be centred around songs. The learners can work individually or in groups to read out the words. They could also analyse these texts by comparing and distinguishing the cultural beliefs and ideas contained in them (Campbell, Campbell & Dickinson 2004:139).

*Use the Intellectual Benefits of Music for the Improvement of Science*

An effective way to reinforce curriculum content in subjects such as science and mathematics, is to compose songs about the topics covered. In the United States of America, an example of a CD that is focussed on science is Kathleen Carroll’s *Sing a Song of Science*. In this CD, nineteen songs, raps and stories about various aspects of science are featured. The songs are entertaining, enjoyable and highly appealing to learners. One of the songs on this specific CD is called “Advantages and Disadvantages of Energy Sources”. Its lyrics are as follows:

Wind,
Wind can be a terrific source of energy.  
It’s very, very cheap you know  
But then sometimes it doesn’t blow.

We need a source of energy,  
For heat, transportation, and electricity.

Water,  
Water can be a terrific source of energy.  
It turns things here, it turns things there.  
But you can’t find water everywhere.

We need a source of energy,  
For heat, transportation, and electricity.

Coal,
Coal can be a terrific source of energy.
It's easy as can be to store,
But it pollutes our air that's for sure….
(Carroll 1998 in Campbell, Campbell & Dickinson 2004:136)

The lyrics to this song are simple, easy to understand, and thus will be very easy to remember. Educators should be challenged to make up such songs for themselves. This can most effectively be done by making use of a tune that is already well known to the learners. One doesn’t need much musicality to compose songs by writing lyrics to easy, well-known songs and melodies. For instance, one educator wrote this song about the water cycle to the melody of “Row, Row, Row Your Boat”:

Drip, drip, drip from the sky
Into a little stream,
Down the mountains, through the plains
And out into the sea.

Up, up, up it goes
Up into the sky,
Over the mountains it blows again,
Then watch the snowflakes fly.

Longer and more complicated songs could be written if the learners are older and can understand concepts better. In addition to creating lyrics to known melodies, both learners and educators can compose original music with corresponding lyrics regarding the specific topic (Campbell, Campbell & Dickinson 2004:136; 144).

Use the Intellectual Benefits of Music for the Improvement of Mathematics
The majority of learners will enjoy swapping boring and monotonous instruction and training of mathematical concepts for interesting, musically inspiring and stimulating learning. Music doesn’t just add enjoyment to the process of being taught something, it also aids in improving recollection of facts. Once again, there
are many recordings and CD’s available in the United States of America, giving examples of how mathematical concepts are taught through the medium of song (Campbell, Campbell & Dickinson 2004:137).

Use the Intellectual Benefits of Music for the Development of Concepts and Insight Across the Curriculum

This is the benefit of music most closely aligned with the DoE’s understanding of integration, as articulated in the RNCS and discussed earlier in this chapter. Don Schlitz, a successful American songwriter, had the following to say when he spoke at the National Commission on Music Education in that country in 1990:

I’ll tell you about a class I had…music appreciation. I didn’t really think of it as a class. I thought of it as a period where we went and sang songs. We were learning that English precisely presents a writer’s thoughts and feelings, that songs are a form of communication. We were learning history through the songs of the nation. It was better than any other history class in my life. We were learning maths, discovering the relationship between parts, and that composition followed mathematical rules. And, we were learning to listen; if you don’t listen you can’t learn. This music appreciation connected my entire studies (Don Schlitz 1990 in Campbell, Campbell & Dickinson 2004:139).

In view of the fact that music is a very important part of any period in history, it enables one to distinguish concerns, mind-sets, and significant occurrences in any particular era. Learners can study political and social matters through listening to music, operas, songs or even musical comedies. Music is also able to teach us about different cultures. This is because music is spoken in and through all languages. Once again, educators can write songs or give the learners the opportunity to do this as a project or an assignment.
CHAPTER 5
CONCLUSION TO THIS STUDY – MI THEORY, OBE, OR BOTH?

In this dissertation I have attempted to take a critical stance towards South Africa’s OBE education system as manifest in the RNCS for the GET band, and I have given particular attention to the Arts and Culture Learning Area within that curriculum in order to focus on the state of music education and the extent that it is made available to all children in this country. I have contrasted this with Howard Gardner’s Multiple Intelligences Theory as a theory wherein Musical Intelligence is given a particularly prominent place. Finally I have highlighted four challenges faced in the implementation of the Arts and Culture Learning Area in South Africa. These include lack of educator training, lack of infrastructure, the fact that it is a curriculum that promotes generic ‘music appreciation’ rather than specialised subject-specific skills and knowledge, and problems encountered with the integration of Outcomes and Assessment Standards within and across Learning Areas.

South African education has come a long way since the mid-1990’s. The DoE must be applauded for their concerted efforts to create a new and functional education system suited to the needs of all in the New South Africa. A great deal of research and thought has gone into every finest detail of the RNCS. The DoE has introduced Arts and Culture as a compulsory Learning Area, they have devised a curriculum for this Learning Area, and they have attempted as far as possible to provide training workshops for its implementation. Few would deny that this is certainly a step up from the previous “class music” system, long since abandoned as a waste of time in most schools. However, what emerges clearly from this study is that South Africa has a long way to go before it can be said that we have a successful music education system in our country. The DoE should take much greater responsibility for the lack of qualified specialists currently teaching Arts and Culture classes. Two- and three-day workshops haphazardly
given are simply not enough. They need to set aside far more time and money to provide the necessary training for educators, and they also need to invest more money in musical instruments and teaching aids for educators. In addition to this they need to rethink the emphasis this curriculum places on generic appreciation of cultural contexts at the expense of specialised subject-specific skills and knowledge. Alternatively, they need to acknowledge the importance of extra-curricula specialised music programmes and address the sad fact that such programmes are currently only available to the privileged few. Only then will all children in South Africa be able to reap the many benefits that a full music education can offer them. In this they can certainly take a leaf out of the book of American schools where an MI approach to education has been implemented with great success, where specialised subject-specific music programmes feature very strongly in the school curriculum, and where the benefits thereof are experienced across all subjects of the curriculum.

In this way the issue of integration is therefore not one aimed exclusively at cultivating generic understandings of cultural expressions (be they musical, literary, visual, dramatic, poetic, or in the form of dance) but also one wherein the emotional, physical and intellectual benefits of subject-specific forms of Musical Intelligence impact positively across the entire curriculum. This I believe has the potential to become the most fruitful meeting point between OBE and MI theory. Educators could try to write songs or use familiar tunes that have particular relevance to South African musical culture and the South African curriculum. Such tunes might include “The Lion Sleeps Tonight”, “Jan Pierwiet”, “Frere Jacques”, “My Sarie Marais”, “Suikerbossie ek wil jou hê”, and any number of traditional African songs. In the case of mathematics, for example, such songs can be used to facilitate the learning of solutions to puzzles and problems. By using a simple and well-known song like “Twinkle, Twinkle, Little Star”, an educator can teach his or her learners about fractions. While they are singing the song, one group can clap on every syllable, in crotchets, while another groups

25 A song that has been appropriated and loosely translated by nearly every culture and language group in the world, including English, Afrikaans and isiXhosa.
claps on the first beat of every bar, a further groups claps on every second and fourth beat, and the last group can clap in quaver beats. The learners are then able to relate and link semibreves, minims, crotchets and quavers to that of dividing up a circle into the same ratios. The learners can also sing or rap rhymes to remember the principles of addition, subtraction, multiplication and division. Older learners can also apply the same principles to algebra and geometry (Campbell, Campbell & Dickinson 2004:140).

In view of the fact that recorded music is not always obtainable for each Learning Area, educators and learners can create and make up their own songs. For example, musical interpretations of topics related to aspects of South Africa’s history and covered in the Social Sciences Learning Area could be created by encouraging learners to compose songs about them. Stories dealing with past conflict and subsequent conflict resolution are ideally suited to musical expression. Possible strategies for songs of this nature are provided by Campbell, Campbell & Dickinson (2004:145) in the table below, to which I have added some suggestions for the plotting of a musical composition.

Table 5.2. Composing a Song about Conflict and Conflict Resolution.

<table>
<thead>
<tr>
<th>Narrative/Lyrics</th>
<th>Music</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identify the actions taken by those involved in the conflict. Provide reasons for the actions and feelings of those directly involved</td>
<td>Begin Verse 1. Begin Verse 2. Consider the role of musical closure (the tonic chord in tonal music, for example) to end verse 1.</td>
</tr>
<tr>
<td>Suggest alternative solutions and brainstorm consequences</td>
<td>Compose counter-themes. Consider the affective role of contrasting musical strategies: major/minor, consonant/dissonant, fast/slow, thick/thin, etc.</td>
</tr>
<tr>
<td>Select the best solution</td>
<td>Consider the role of musical closure (the tonic chord in tonal music, for example) to end verse 1.</td>
</tr>
<tr>
<td>Determine if there are lessons to be learned from efforts to resolve previous conflicts. Consider similar situations and what happened to resolve or exacerbate the conflict</td>
<td>Begin verse 2. Consider a musical variation of the themes in verse 1.</td>
</tr>
</tbody>
</table>
Modify the proposed solution if appropriate

Consider a musical variation of the closure to verse 1 to end verse 2.

Generalise assumptions about conflict and how it might best be resolved.

Consider the closing strategies used in a musical Coda.

Learners could work in groups to compose their songs, since many derive great pleasure from this type of creative group activity. When a whole class takes part in composing songs, they learn to work together, get to know and appreciate each other much better, have fun in the process and also convey their creativeness and imagination (Campbell, Campbell & Dickinson 2004:145).

In closing, it should be stressed that the aim of this study has not been to suggest that OBE should be abandoned in South Africa in favour of a system such as the MI approach. In my opinion there is nothing substantially or inherently at fault with the RNCS in general, nor with the Arts and Culture Learning Area in particular. South Africans owe OBE the chance to prove its long term worth. In the case of music, rather, it is in the implementation phase of this curriculum that problems continue to arise. But if creative and lasting solutions can be found for these problems, and if OBE will allow itself to draw from the strengths of other educational approaches (such as the MI approach), then music education in South Africa may well be on its way to a rosy future.
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