

ASSESSING MULTIPLE INTELLIGENCES (MI) THROUGH THE SOUTH AFRICAN CURRICULUM AND ASSESSMENT POLICY STATEMENT

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ABSTRACT

The purpose of this study is to explore possible assessment opportunities in the South African Curriculum and Assessment Policy Statement (CAPS) through Gardner's theory of Multiple Intelligences (MI). Although the CAPS document does not explicitly align itself to Gardner's theory, this paper attempts to explore the possibilities of using the eight MI in assessment at Senior Phase: a schooling grade in the South African secondary school. A burgeoning research output has focused on Gardner's theory of MI as a framework for designing a curriculum that meets different learning and teaching styles. In contrast, few studies have attempted to understand MI as an assessment framework. MI provides useful framework for teachers to consider eight intelligences in their assessment in order to cater for the diverse ways in which learners come to know in the classroom. This paper is written to argue that the traditional ways of assessing through tests and exams do not allow learners to demonstrate multiple intelligences they possessed. The paper followed a literature study approach where existing literature on MI was described and analysed in the light of assessment opportunities offered at Senior Phase curriculum in South Africa. From an analysis of literature and the Senior Phase curriculum, the paper does show a positive opinion of integrating Gardner's eight MI for holistic learner assessment. Furthermore, the paper also considers the implications of MI theory on teaching and proposes ways in which MI could be assessed within the curriculum.

Keywords: Assessment; Curriculum and Assessment Policy Statement (CAPS); Gardner's Multiple Intelligences; National Protocol for Assessment; Senior Phase

INTRODUCTION

Assessment is an integral part of teaching and learning process in any curriculum. As the ultimate goal of assessment is to improve learner learning, schools need to set up their own internal assessment policies to be in line with the curriculum offered and to provide a rich source of assessment information that will provide feedback to improve learner learning. A commonly held belief in teaching is that every learner is unique and possesses the ability to learn, and that we should develop their multiple intelligences (MI) and potentials, for them to succeed. Teachers therefore have a responsibility to implement assessment practices which are accommodative of learners multiple intelligences and ensure that assessment as an integral part of the learning, teaching and assessment cycle. Smith (2008) observes that the multiple intelligences theories has had a profound impact on thinking and practice in education, especially in the United States. It is necessary to apply the theory in other countries where the contexts are different from those of the United States.

The multiple intelligences (MI) theory recognises the fact that learners in the same class possess different abilities. According to Gardner (1995) all of us possess each of the intelligences, but no two individuals exhibit exactly the same profile of intellectual strengths and weaknesses. Each intelligence exhibits its own developmental trajectory. If assessed intelligences need to be approached in their own terms (an "intelligence-fair" way) rather than through the language-logic lens of a traditional test. Adopting different assessment modes and strategies could help to address different levels of performance and learner diversity as well as to provide equal opportunities for learners to demonstrate their achievements. Hence we understood that by embracing MI worldview in assessment we better equip the classroom practitioner with multiple ways of assessing, a strategy that enhances learners' intellectual strengths.

¹ Senior Phase refers to the first three years of secondary education in South Africa and is aimed at learners of 13 to 15 years old.

Gardner's theory of MI has several implications for teachers in terms of assessment. Gardner's (1993) theory identifies eight intelligences that are needed to productively function in society. These intelligences are: linguistic intelligence, logical-mathematical intelligence, spatial intelligence, bodily-kinesthetic intelligence, musical intelligence, interpersonal intelligence, intrapersonal intelligence and naturalist intelligence. Lane (2000) observes that this theory recognises that "we are all able to know the world through language, logical-mathematical analysis, spatial representation, musical thinking, and the use of the body to solve problems or to make things, an understanding of other individuals, and an understanding of ourselves" (p. 1). Teachers are therefore challenged to think of all intelligences as equally important. This is in great contrast to traditional education systems which typically place a strong emphasis on the development and use of verbal and mathematical intelligences.

The theory of MI implies that teachers should recognize and teach to a broader range of talents and skills. According to Brualdi (1996) the implication is that teachers should structure the presentation of material and assessment in a style which engages most or all of the intelligences. According to Hattangadi (2014) the idea of multiple intelligences is important because it allows for teachers to identify differing strengths and weaknesses in learners and also contradicts the idea that intelligence can be measured through IQ. He argues that Howard Gardner's theory of Multiple Intelligences provides a great alternative to the popular measurable IQ method. Mensch (1991) confirms that intelligence and IQ tests have always been used to classify people as intelligent or unintelligent or specifically to pass value judgments about their social status. From this background, the researchers argue that multiple intelligences should be an integral part of any school assessment because of its benefits to the learners, these benefits are discussed later in this paper.

In South Africa the National Curriculum Statement (NCS) implementation had some shortcomings which necessitated its refinement. In 2009 the Ministerial Committee was tasked with the review of the implementation of the National Curriculum Statement resulting in a Curriculum and Assessment Policy Statement (CAPS). CAPS was introduced to strengthen the National Curriculum Statement in order to improve the quality of teaching, learning and assessment in schools. With the introduction of CAPS, every subject in each grade has a *single, comprehensive and concise policy document* that provides details on what teachers need to teach and assess on a grade-by-grade and subject-by-subject basis. The aim of the NCS review was to lessen the administrative load on teachers and ensure that there is clear guidance and consistency for teachers when teaching and assessing. Most of the changes subsequent to the implementation of a post-apartheid curriculum in South Africa have been directly or indirectly driven by the teachers through their unions or through research that has been conducted on their experiences in implementing the curriculum. The implementation of CAPS also came along with National Protocol for Assessment Grades R – 12 which consists of guidelines on how to conduct assessment within the curriculum. Assessment in the National Protocol for Assessment Grades R – 12, is framed in terms of the following insights: Assessment is a process of collecting, analysing and interpreting information to assist teachers, parents and other stakeholders in making decisions about the progress of learners. The National Curriculum Statement Grades R – 12 is the formal curriculum in South African schools. Classroom assessment should provide an indication of learner achievement in the most effective and efficient manner by ensuring that adequate evidence of achievement is collected using various forms of assessment. The intention of this document is to regulate how evidence of learner performance is recorded and reported (DBE, 2011).

The South African Government Gazette 20844 of 4 February 2000 spells out the role of the educator as assessor in the following way:

The teacher will understand that assessment is an essential feature of the teaching and learning process and know how to integrate it into this process. The educator will have an understanding of the purposes, methods and effects of assessment and be able to provide helpful feedback to learners. The educator will design and manage both formative and summative assessment in ways that are appropriate to the level and purpose of the learning and meet the requirements of accrediting bodies. The educator will keep detailed and diagnostic records of assessment. The teacher will understand how to interpret and use assessment results to feed into processes for the improvement of learning programmes.

As stated above, the role of teachers as assessors is to continuously gather valid and reliable information about the performance of the learner against clearly defined criteria, and using a variety of assessment and taking into consideration the contexts of learners and their developmental level. Assessment in the National Protocol for Assessment caters for both formative and summative assessments. In formative assessment learners are provided with ample opportunities to receive timely feedback to motivate them and guide their future learning. Formative assessment is necessary to track learners' progress over time, build up learners' confidence in themselves and help learners to take responsibility for their own learning. Summative assessment needs to be planned carefully

from the beginning of the year to include a variety of assessment strategies to provide learners with a range of opportunities to show what they have learned.

Children do not learn in the same way, as a result they cannot be assessed in a uniform fashion. Brualdi (1996) argues that, it is therefore important that teachers create an "intelligence profiles" for each learner. Knowing how each learner learns allows the teacher to properly assess the child's progress. The traditional ways of assessing through tests and exams did not allow learners to demonstrate multiple intelligences they possessed. This paper examined the assessment practices within the CAPS and how they reflect various MI. The paper also considers the implications of MI theory on teaching and proposes ways in which could be incorporated into the assessment at Senior Phase.

GARDNER'S THEORY OF MULTIPLE INTELLIGENCES

Gardner's Theory of Multiple Intelligences postulates that there are at least eight different human intelligences. This theory was first proposed by Howard Gardner in his book titled: *The Frames of Mind* in 1983. The theory is based on two central propositions. The first proposition is that all human beings possess all the intelligences identified in the foregoing discussion. The proposition is that, because of our genetics and our environment, individuals possess unique profile of intelligences, because their experiences are different. These eight intelligences proposed by Gardner (1993) are:

- Visual/Spatial Intelligence which enables individuals to perceive their environment visually and manipulate visual images from the memory.
- Verbal/Linguistic intelligence: which enables individuals to effectively read, write and speak to relay a message.
- Logical/Mathematical intelligence: which enables individuals to solve mathematical operations, think logically and execute computing skills.
- Musical intelligence: which enables individuals to express themselves musically and through rhythm?
- Bodily/Kinesthetic intelligence: this enables individuals to use gross motor skills to perform physical activities.
- Interpersonal intelligence: which enables individuals to get along with others and be able to communicate with them. It allows people to work effectively with others
- Intrapersonal intelligence which enables individuals to understand themselves and be able to exercise self-control.
- Naturalist intelligence which enables individuals to understand their surrounding or the natural environment.

Gardner objected to the use of IQ as the only way of determining human intelligence hence he came up with various intelligences that define a human being. Gardner (1993) redefined intelligence as the ability to solve problems and fashion products that are valued in a particular cultural setting or community. This definition is in contrast with the traditional definitions which viewed intelligence as a unitary capacity which can be measured in terms of Intelligent Quotient (IQ) tests. Stanford (2003) observes that Gardner's theory challenged the notion that intelligence is something that can be objectively measured and reduced to a single quotient or score. He maintains that this approach only defines intelligence too narrowly. Multiple Intelligences theory encourages teachers to view learners as equals regardless of IQ scores produced tests or psychological assessments. Armstrong (2000) argues that MI is also accommodative of learners with special needs as it incorporates a wide spectrum of abilities. Armstrong maintains that teachers who view special needs in the context of the eight intelligences view all those learners as unique possessing different abilities. He contends that "using MI as a backdrop, educators can begin to perceive children with special needs as whole persons possessing strengths in many areas (p.104)." This implies that as much as teachers tailor teaching methods to suit the learner's individual learning styles the same should be extended to assessment.

LITERATURE STUDY: GARDNER'S MULTIPLE INTELLIGENCES AND ASSESSMENT

Multiple Intelligences theory has several implications for teaching and learning process. Campbell (1997) contends that MI makes a significant contribution to the teaching and learning process by encouraging teachers to expand their repertoire of techniques, tools, and strategies beyond the typical linguistic and logical ones predominantly used in classrooms. Edward (2004) argues that with today's increasing diversity among learners in terms of language, culture, religions, ability, and experience, it has become even more important to find strategies that meet a wide range of needs. School curriculum therefore needs to be accommodative of this diversity through use a various teaching approaches, resources, activities and assessment methods. Edward (2004) believes that Multiple Intelligences (MI) theory and strategies provide a framework and tools that can help teachers in designing classrooms, instruction, and curricula that meets the individual needs of many kinds of learners. Multiple intelligence theory is central to the holistic development of learners.

Assessment is an integral part of the teaching and learning process. Assessment should be part of every lesson and teachers should plan assessment activities to complement classroom activities. According to the Department of Education (DBE) (2002) assessment involves four steps: generating and collecting evidence of achievement, evaluating this evidence against the outcomes, recording the findings of this evaluation and using this information to assist the learner's development and improve the process of learning and teaching. Assessment is used for a variety of reasons such as individual growth, development and promotion. Teachers in different grades can transform assessment practices through MI by providing teachers with a basis for making instructional decisions and modifying teaching methods, and helps in grading learners' work for progression purposes. Teachers in different grades can transform assessment practices into meaningful MI. experiences. The use of various assessment methods by the teachers will help encourage their learners to demonstrate understanding through MI. activities. Collins (1998) maintains that Gardner's theory has not provided a detailed plan on how schools can implement MI in the classroom situation. It is therefore upon administrators, schools and teachers to interpret the theory informed by their own contexts. The researchers are of the view that there various ways in which learners can be assessed in order demonstrate learning and understanding in different intelligences. All intelligences are accounted for in various subjects in the curriculum/CAPS. This section therefore considers how each form of intelligence is accommodated in various Senior Phase (Grades 7-9) subjects in the Curriculum and Assessment Policy Statement. The researcher also identifies a variety of assessment techniques which teachers could use in their classrooms to assess different intelligences within the Curriculum and Assessment Policy Statement in South Africa. The following eight intelligences have been identified in the curriculum:

THE EIGHT INTELLIGENCES AND APPLICABILITY TO THE SOUTH AFRICAN CAPS (SENIOR PHASE)

Visual/Spatial Intelligence

Visual/Spatial Intelligence which deals with visual perception of the environment, it involves the capacity to think in images and pictures abstractly (Gardner, 2005). Visual/Spatial Intelligence is predominantly addressed under the Visual Arts section of the Creative Arts subject in the Senior Phase curriculum. According to DBE (2011) Visual Arts exposes learners to the content, concepts and skills of visual arts, through a range of different activities to develop a rich visual language and related skills. In Visual Arts learners are taught to express themselves in symbolic, visual ways. Opportunities are provided for social, emotional and intellectual development, and through non-verbal expression and the process of creating art, the learners come to understand symbolic language. The development of Visual/Spatial Intelligence is spread across other subjects such as Mathematics, Geography and Natural Sciences where symbols are used as well. Visual/Spatial Intelligence can be developed and assessed through drawings, illustrations, paintings, photographs, sculptures or sketches, power point, scrapbooks, videos, charts, graphs, map work, video tapes, laser disks, CD's, DVD's and posters. Learners with developed visual-spatial intelligences can express themselves well in symbolic and visual ways through paintings or drawings. Their assessment should therefore accommodate their unique abilities of expressing themselves.

Verbal/Linguistic Intelligence

Verbal/Linguistic intelligence involves reading, writing, speaking, to express oneself and relay the information. In Caps, Verbal/Linguistic intelligence is largely catered for in 11 official languages offered in the curriculum. Learning to use language effectively enables learners to acquire knowledge, to express their identity, feelings and ideas, to interact with others, and to manage their world. According to the DBE(2011) language learning requires learners to engage in prepared speech, unprepared speech, prepared reading (reading aloud), unprepared reading (reading aloud), debate, dialogue, interview, report (formal and informal), oral presentation/report, role plays, introducing a speaker, poetry, drama, novel, short stories, and folklore. All these learning activities are meant to develop Verbal-Linguistic Intelligence of the learners and time is allocated for each activity in the time table/curriculum to be addressed. Different learning activities help learners to develop language skills. These include: use of tone, voice projection and gestures; correct pronunciation of words without distorting meaning and to argue different viewpoints on a chosen topic.

According to DBE (2011) the language is a tool for thought and communication. It is also a cultural and aesthetic means commonly shared among a people to make better sense of the world they live in. It also provides learners with a rich, powerful and deeply rooted set of images and ideas that can be used to make their world other than it is; better and clearer than it is. It is through language that cultural diversity and social relations are expressed and constructed, and it is through language that such constructions can be altered, broadened and refined. Verbal/Linguistic intelligence is also developed in various subjects of the curriculum as the language serves as a medium of curriculum delivery.

Assessment activities such as presentations, storytelling, poetry, prepared and unprepared speeches and debates would be able to assist the teacher to determine and enhance this type of intelligence. Powers (2010) identifies reading, listening, writing, and speaking as four inextricably intertwined aspects of any language development. All these aspects are equally important in the mastery of language. This means that teaching and assessment of learners should appeal to all the four aspects of language learning. In assessment learners must be able to demonstrate that they are able to communicate effectively. Powers (2010) argues that for effective communication to occur, people must not only speak or write; they also must understand how others have perceived their messages if they are to respond in ways that address their audience's concerns and questions. Effective communication is required to enable learners to engage in social interactions, within which they enhance their verbal skills and learn turn-taking, contingent responding and conflict resolution (Stock & Fisher, 2006).

Logical/Mathematical intelligence

Logical/Mathematical intelligence enables individuals to solve mathematical operations, think logically and execute computing skills (Armstrong, 2009). In CAPS the Logical/Mathematical Intelligence mainly features in Mathematics, Natural Sciences and Technology subjects in the Senior Phase curriculum. In Mathematics learners make use of symbols and notations to describe numerical, geometric and graphical relationships. They are expected to observe, represent and investigate patterns and quantitative relationships in physical and social phenomena and between mathematical objects themselves. Mathematics helps to develop processes that enhance logical and critical thinking, accuracy and problem-solving that contributes in decision-making (DBE, 2011). Natural Science engages learners in a systematic way of looking for explanations and connecting the ideas they have. In Natural Science learners are engaged in observing, comparing, measuring, sorting, classifying living and non-living things as well as identifying problems and issues (DBE, 2011). All this contribute in developing learners' Logical-Mathematical Intelligence. In Technology learners are stimulated to be innovative and develop their creative and critical thinking skills. It teaches them to manage time and material resources effectively, provides opportunities for collaborative learning and nurtures teamwork. It enables them to develop and apply specific design skills to solve technological problems.

Learners with a developed Logical-mathematical intelligence have an ability manipulate numbers; and use logic, numbers and reasoning to understand the world around them. Assessment of Mathematical-Logical Intelligence could be conducted through activities that involve solving of mathematical problems, drawing graphs to explain information and experiments. Other learning materials that could be used to assess Mathematical-Logical Intelligence include calculators, puzzles, rulers and other measurement instruments. According to Hirsh (2004) mathematical intelligence involves a process, whereby a problem must be identified, recognized as something worth solving, an algorithm is then identified and/or created, and a solution is attempted. He contends that intelligence in this area requires a true understanding of how mathematics and logic work in the real world, in everyday life. Understanding the why in mathematics truly indicates an understanding of mathematic processes.

Musical Intelligence

Musical intelligence enables individuals to express themselves musically and through rhythm (Gardner 2005). Learners with Musical intelligence have can perform, compose and appreciate music. The Creative Arts subject in the Senior Phase curriculum provides exposure to and study of a range of art forms including dance, drama, music and visual arts (including design and crafts) Creative Arts helps to develop learners as creative, imaginative individuals who appreciate the arts and who have the basic knowledge and skills to participate in arts activities (DBE,2011). Creative Arts also provides learners with opportunities to experience dancing, to use their bodies safely, to develop fitness required for a particular dance, they learn movement sequences and begin to appreciate dance as a creative art. Learners play musical instruments, sing songs/melodies that match a particular mood and perform rhyming poems. Assessment of Musical Intelligence could be conducted through singing, playing musical tapes and videos, playing CD's, recording, composing of music by learners and performance.

Bodily/Kinesthetic intelligence

Bodily/Kinesthetic intelligence involves learning through physical movements and coordination using fine and gross motor skills (Armstrong, 2009; Gardner, 2005). In the senior phase a section on Physical Education encouraging learners to participate in fitness programme and teaching them about safety issues. Learners are encouraged to participate in physical activities such as sport and dance to improve their own fitness and physical wellness. Creative Arts subject also provides learners with opportunities of developing Bodily/Kinesthetic intelligence through dance, where they learn movement sequences and dramatize. Teachers can assess bodily-kinesthetic intelligences through dance, sports, simulations, exercises, physical movement, typing and dramatization.

Interpersonal intelligence

Interpersonal intelligence enables individuals to get along with others and be able to communicate with them. It allows people to work effectively with others (Gardner, 2005). Teachers, preachers, political leaders and sales people, all require a well-developed interpersonal intelligence. There are traces of Interpersonal intelligence in all the subjects offered in the senior phase curriculum, but Life orientation is the subject in which this intelligence finds much expression and attention. In the Life Orientation subject learners are encouraged to develop beneficial social interactions, such as respecting others' rights and values. It also promotes lifelong participation in recreation and physical activity. Through the use of various teaching methods such as role plays, group discussion, pair work, debates, case studies interpersonal Intelligence is developed. These teaching methods encourage learners to participate actively and reinforce learning through interaction and sharing of ideas. Conversations amongst the learners create an opportunity for them to practice various skills such as communication, ability to articulate one's ideas and defend them, interpersonal skills and the ability to respect a different point of view. Interpersonal Intelligence can be assessed engaging learners in debates, group discussions, pair work, group projects, role plays, panels and group work. Learners who possess strong interpersonal intelligence relate and get along well with other people. Their assessment may involve activities that require them to interact and work with other people.

Intrapersonal intelligence

Intrapersonal intelligence enables individuals to understand themselves and be able to exercise self-control (Armstrong, 2009). A person with a highly develop intrapersonal intelligence has an ability to do self-reflection to identify their strengths and weaknesses for self-improvement. In Life Orientation a section on the development of the self in society addresses the concept of self-image in which learners are supposed to identify and reflect on positive personal qualities and relationship with self, family, and friends. Teachers use various learning activities (such as role play, drama, journal) to enhance self-image through instilling positive attitudes. In this section on the development of the self, learners are taught about self-image; peer pressure; personal diet and nutrition; self-formation and self-motivation; sexuality; relationships and friendships; goal-setting skills: personal lifestyle choices; sexual behaviour and sexual health and dealing with challenging situations such as depression, grief, loss, trauma and crisis (DBE, 2011). People with Intrapersonal intelligence understand themselves very well, they are aware of their strengths, weaknesses, emotions and moods as well as how to appropriately act on them. This intelligence can be assessed through self-reflection activities, diary entries, meditation exercises, journals, personal stories, self-assessment, memoirs, role play, drama and case studies. Smith (2008) observes that people with intrapersonal intelligence will demonstrate understanding of oneself, appreciate one's feelings, fears and motivations.

Naturalist intelligence

Naturalist intelligence enables individuals to understanding the natural environment (Moran, Kornhaber & Gardner, 2006). People with the Naturalist intelligence have a relationship with the natural environment; they appreciate plants, animals and nature resources. In the Senior phase the Social Science subject is made up of History and Geography sections. Naturalist intelligence finds it expression and prominence in the Geography section of Social Science. Geography helps learners to understand their environment. It alerts learners about human activities that affect the environment and how to interact with the natural environment. Natural Science is another subject in the curriculum that develops Naturalist intelligence in learners as it teaches them about natural resources, such as plants, and animals. Individuals with the Naturalist intelligence relate well with their natural environment, they understand and care about it. Naturalist Intelligence can be assessed by engaging learners in field trips, outdoor activities, solving environmental problems, planting trees, their interaction with animals, draw or photograph natural objects, describe geographical sites and features, identify and classify birds/trees/insects and write about caring for plants and animals.

This section has demonstrated MI Intelligences are integrated into the Curriculum and Assessment Policy Statement, however there were no indications of how each intelligence is assessed in the curriculum. The researchers put forth various ways in which these intelligences could be assessed by the teachers. Brualdi (1996) advise that teachers must seek to assess their learners' learning in ways which will give an accurate overview of their strengths and weaknesses. As learners do not learn in the same way, they cannot be assessed in a uniform fashion. Therefore, it is important that a teacher creates "intelligence profiles" for each learner. Knowing how each learner learns will allow the teacher to properly assess the child's progress (Lazear, 1992). This individualized evaluation practice will allow a teacher to make more informed decisions on what to teach and how to present information. Traditional tests (e.g., multiple choice, short answer, and essay) require learners to show their knowledge in a predetermined manner.

IMPLICATIONS FOR THE GARDNER'S THEORY OF MULTIPLE INTELLIGENCES ON ASSESSMENT

The theory proposes that human beings possess a unique blend of intelligences. MI provides eight different potential pathways in which learning can take place in the classroom. Teachers have an opportunity to switch between the eight different intelligences to ensure effective learning. Multiple intelligences caters for learner diversity, irrespective of their developmental level, it could be used right from early childhood to higher education, applying the same basic guidelines. Brualdi (1996) observes that MI has several implications for teachers in terms of classroom instruction as all eight intelligences are needed to productively function in society. He argues that teachers should think of all intelligences as equally important. A classroom is a heterogeneous environment with learners from diverse backgrounds possessing different abilities. Teachers have a huge responsibility of embracing diversity into their classrooms by using various teaching strategies, resources and learning activities that develop most if not all intelligences.

Learners come into the classroom with different sets of developed intelligences, which means that each child will have his own unique set of intellectual strengths and weaknesses (Brualdi (1996). This will be mainly due to the experiences that learners have been exposed to prior to coming to the classrooms. The prior experiences will therefore determine how easy (or difficult) it is for a learner to learn information when it is presented in a particular manner. It is very important for the teachers to baseline assessment at the beginning of the year to establish what learners already know so as to planning of learning programmes and learning activities that would deal with any identified weakness. Formative assessment can then be continuously conducted to monitor and support the teaching and learning process. According to Lazear (1992) the teachers can show learners how to use their more developed intelligences to assist in the understanding of a subject which normally employs their weaker intelligences. For example, a learner with a highly developed musical intelligence in an early childhood classroom can be taught counting by compiling a song for him or her that would include singing numbers chronologically. Theory of Multiple Intelligences implies that teachers should recognize and teach to a broader range of talents and skills. By appealing to a wide range of intelligences, teaching in this manner can facilitate a deeper understanding of the subject material. (Lazear, 1992).

MI makes a valuable contribution to education as it helps teachers improve their classroom practices and encourage them to look beyond traditional ways of teaching and assessment, which did not consider learners' diverse abilities and intelligences. An understanding of MI theory broadens teachers' awareness of their learners' knowledge and skills and enables them to look at each learner from the perspective of strengths and potential. Teachers also become aware of the different ways in which learners may demonstrate their understanding of material. MI theory provides a structured way of understanding and addressing the diversity that ESL instructors often encounter in the classroom (Christison, 1996).

CONCLUSION

This paper argues for the use of Gardner's MI as an assessment framework in addition to its use as a curricula perspective. The South African Senior Phase curriculum was used as an example to explore the possibilities of underpinning assessment in teaching using MI. Although the South African school system was used as a research site, the insights from the paper can improve practice in the different locales in the world. The review of existing literature and curriculum documents reveal a lot of possibilities in assessing all the learners' intelligences. Fostering these intelligences in assessment should not be an add-on but an integral part of everyday planning, teaching and assessment. Learning activities in the classroom should focus on developing one or more of these intelligences. The use of various assessment methods by the teachers will help encourage their learners to demonstrate their learning through MI activities.

REFERENCES

- Armstrong, T. (2000). *Multiple intelligences in the classroom*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Armstrong, T. (2009). *Multiple Intelligences in the Classroom* 3rd Ed. Alexandria, VA: Association for Supervision and Curriculum Development.
- Brualdi, A.C. (1996) *Multiple Intelligences: Gardner's Theory*. Washington DC: Eric Digests. Retrieved from: <http://files.eric.ed.gov/fulltext/ED410226.pdf>
- Campbell, L. (1997) 'Variations on a theme—How teachers interpret MI theory' *Educational Leadership*, 55(1), 14–19.
- Christison, M.A. (1996) 'Teaching and learning languages through multiple intelligences' *TESOL Journal*, 6 (1), 10–14.
- Collins, J. (1998) How to make a better learner: Seven kinds of smart. *Time Magazine Online*. Retrieved from: <http://www.time.com/time/magazine/article/0,9171,989359,00.html>

- Department of Basic Education (2011) *Curriculum and Assessment Policy Statement: Grades 7– 9: Mathematics*. Pretoria: Government Printing Works.
- Department of Education. (2002). *Curriculum 2005 Assessment Guidelines for Inclusion*. Pretoria: Government printers.
- Edward, G.F. (2004). How Multiple Intelligences Theory Can Guide Teachers' Practices: Ensuring Success for Learners with Disabilities. Retrieved from: <http://www.urbanschools.org/pdf/onPOINTS.multiple.intelligences.DOCUMENT.style.LETTERSIZES.pdf>
- Gardner, H. (1993). *Frames of Mind: The Theory of Multiple Intelligences*. New York: Basic Books.
- Gardner, H. (1993). *Multiple Intelligences: The Theory in Practice*. New York: Basic Books.
- Gardner, H. (2000). *Intelligence Reframed: Multiple Intelligences for the 21st Century*. New York: Basic Books.
- Gardner, H. (2005). *Multiple lenses on the mind*. Paper presented at the ExpoGestion Conference, Bogota Colombia, and May 25, 2005.
- Hattangadi, V. (2014). *Multiple Intelligences of Howard Gardener: Intelligence in the Making*. Retrieved from: <http://drvidyahattangadi.com/multiple-intelligences-of-howard-gardener/>
- Hirsh, R.A. (2004). Excerpt from *Early Childhood Curriculum: Incorporating Multiple Intelligences, Developmentally Appropriate Practice, and Play*. Upper Saddle River, NJ: Pearson Education, Inc. Retrieved from: <http://www.education.com/reference/article/logical-mathematical-intelligence/>
- Lane, C. (2000). *Implementing Multiple Intelligences and Learning Styles in Distributed Learning/IMS Projects*. San Clemente: The Education Coalition (TEC). Retrieved from: <http://www.tecweb.org/styles/imslsindl.pdf>.
- Lazear, D. (1992). *Teaching for multiple intelligences*. ERIC Document Reproduction Service No. ED 356 227.
- Mensch, J. R. (1991). Phenomenology and Artificial Intelligence: Husserl Learns Chinese *Husserl Studies*, 8, 107–127.
- Moran, S., Kornhaber, M. & Gardner, H. (2006). Orchestrating multiple intelligences *Educational Leadership*, 64(1), 22–27.
- Powers, D.E. (2010). The Case for a Comprehensive, Four-Skill Assessment of English-Language Proficiency. Retrieved from: https://www.ets.org/Media/Research/pdf/RD_Connections14.pdf
- Smith, M.K. (2008) Howard Gardner and multiple intelligences. *The Encyclopedia of Informal Education*. Retrieved from: <http://www.infed.org/thinkers/gardner.html>
- Stock, C.D. & Fisher, P.A. (2006). 'Language delays among foster children: implications for policy and practice. *Child Welfare*, 85(3), 445–461.