The Relation between Multiple Intelligences Theory (MIT) and Methods of ELT

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Abstract
Multiple Intelligences Theory (MIT) was developed in 1983 by Dr. Howard Gardner, professor of education at Harvard University, and it has profound implication for education in general. In this paper, as the title suggests, we discuss eight different intelligences Dr. Gardner proposes and their impact on the ESL (English as a Second Language) / EFL (English as a Foreign Language) classroom.

Introduction
It has been more than twenty years since Gardner’s (1983) theory of multiple intelligences was first introduced. Since then, a plethora of literature on multiple intelligences has followed, generating wide support for the theory (see Barrington, 2004; Gardner, 1999; Kornhaber, 2002 and Shearer, 2004 just to mention a few). Very few theories in the history of educational research have had the impact of MI (Shearer, 2004) and according to Kornhaber (2002), Gardner’s MI (1983) theory has been adopted and implemented for use in schools throughout the world with diverse student populations including special needs, gifted, and juvenile delinquents.

While almost a quarter of a century has passed since Gardner first introduced his theory of Multiple Intelligences (1983), apart from debates of whether or not MI theory can be applied to students in higher education (Barrington, 2004), this area has received little attention and an exiguous amount of research concerning MI theory and tertiary education exists. Stage, Muller, Kinzie, and Simmons (1998), for example, note the scant amount of research concerning multiple intelligences and higher education. In a review of the literature they state that little research on MI exists which addresses college students. Additionally, our review of the literature discovered only two studies that discussed MI and college level students or actually applied any type of statistical analysis of Gardner’s Theory, as it relates to higher education (see Kezar, 2001; Johnson and White, 2002).

The fact that educators have so readily taken to MI is quite remarkable, (Kornhaber, 2002) given the absence of information and structure to support the theory’s implementation, and as Kornhaber (2002) argues, it is reasonable to ask why educators have so readily adopted Multiple Intelligences theory. Given this
void in the literature, our goal here is to develop a series of research studies which address the lack of research in this area as it applies to college students. The present study is the first in a series of studies to follow. In this paper, we provide a profile of multiple intelligences of college students enrolled in online courses and compare them across several dimensions (Fig. 1.)

**Review of Multiple Intelligences Theory**

Multiple Intelligences (MI) theory was first articulated by Gardner (1983) in Frames of Mind: The Theory of Multiple Intelligences. MI theory, as it has come to be known, postulates that a unitary concept of intelligence lacks the capacity to accurately assess the strength and weaknesses of individuals. This argument provides a framework for MI theory’s two major claims. First, all individuals possess some level of all the intelligences articulated in the theory, and second, just as we all possess different physical features, personality types and levels of temperament, we also exhibit different profiles of multiple intelligences (Gardner, 1983).

Originally, Gardner first proposed seven different intelligences and later added an eighth in 1995, known as naturalist intelligence (Gardner, 2004). Today, he continues to contemplate whether other areas of intelligence exist and has written in support of a ninth, existential intelligence however, he is yet to include existential intelligence, which consists of the individual’s ability to ponder fundamental questions about life, death, and existence (Gardner, 2004). Gardner’s theory claims that all humans possess multiple intelligences and just like variations that exist in our physical appearance, each of our intelligent profiles varies as well (Gardner, 2004).

The eight areas of intelligences include: 1) linguistic, 2) logical-mathematical, 3) musical, 4) spatial, 5) bodily-kinesthetic, 6) interpersonal, 7) intrapersonal, and 8) naturalist (Gardner 1983) (Table 1). One of Gardner’s (1983) criticisms of how we have historically viewed intelligence is that most standard measures of intelligence primarily probe linguistic and logical intelligence; while others examine spatial intelligence. The remaining intelligences have almost entirely been ignored. Below is a brief explanation of each of the eight Multiple Intelligences that we profile in the present study. Because Gardner himself (2004) indicates that he has not yet added existential intelligence, we have excluded existential intelligence from the present paper.

Linguistic intelligence involves spoken and written language. It is the ability to learn languages, and the capacity to use language to accomplish certain goals. This
intelligence includes the capacity to effectively use language to express oneself. Gardner attributes high levels of linguistic intelligence to writers, poets, lawyers and speakers. Logical-mathematical intelligence involves the capacity to analyze problems logically, carry out mathematical functions, and investigate problems scientifically. It includes the ability to detect patterns, reason deductively and think logically. This intelligence is most often associated with scientific and mathematical thinking. High levels of logical intelligence are related to accountants, statisticians, and computer programmers. Musical intelligence involves the performance, composition, and appreciation of musical patterns as well as the capacity to recognize and compose musical pitches, tones, and rhythms. Gardner also claims that musical intelligence is structurally parallel to linguistic intelligence. Bodily-kinesthetic intelligence involves the potential of using one's whole body or parts of the body to solve problems by using mental abilities to coordinate bodily movements. This includes athletes and dancers as well as mechanics, surgeons and crafts persons.

Spatial intelligence is the potential to recognize and use the patterns of wide space and more confined areas and is associated with one's visual capacity. Illustrators, interior decorators, architect, graphics designer, and photographers can be found in this category. Interpersonal intelligence is concerned with the capacity to understand the intentions, motivations and desires of other people. It allows people to work effectively with others. Educators, salespeople, religious and political leaders and counselors all need a well-developed interpersonal intelligence. Intrapersonal intelligence entails the capacity to understand oneself, to appreciate one's feelings, fears and motivations. In Gardner's view it involves having an effective working model of ourselves, and to be able to use such information to regulate our lives. Counselors, planners, social workers, psychologists, writers and religious leaders are related to intrapersonal intelligence. Naturalist intelligence deals with classification abilities or the flora and fauna of one’s environment. Biologists would be classified as naturalist as would those individuals who have the ability to recognize and identify species and subspecies.
Figure 1: Multiple Intelligences and professions.

Table 1: The eight areas of intelligences

<table>
<thead>
<tr>
<th>Multiple Intelligence Type</th>
<th>Incorporated into subject matter</th>
<th>Way of demonstrating understanding</th>
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<tbody>
<tr>
<td>Verbal-Linguistic</td>
<td>Books, stories, poetry, speeches, author visits</td>
<td>Writing stories, scripts, poems, storytelling</td>
</tr>
<tr>
<td>Mathematical-Logical</td>
<td>Exercises, drills, problem solving</td>
<td>Counting, calculating, theorizing, demonstrating, programming computers</td>
</tr>
<tr>
<td>Musical</td>
<td>Tapes, CD’s, concert going</td>
<td>Performing, singing, playing, composing</td>
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<tr>
<td>Visual-Spatial</td>
<td>Posters, art work, slides, charts, graphs, video tapes, laser disks, CD-ROMs and DVDs, museum visits</td>
<td>Drawing, painting, illustrating, graphic design, collage making, poster making, photography</td>
</tr>
<tr>
<td>Bodily-Kinesthetic</td>
<td>Movies, animations, exercises, physicalizing concepts, rhythm exercises</td>
<td>Dance recital, athletic performance or competition</td>
</tr>
<tr>
<td>Interpersonal</td>
<td>Teams, group work,</td>
<td>Plays, debates, panels,</td>
</tr>
<tr>
<td>Specialist Roles</td>
<td>Group Work</td>
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<td>------------------------------------------</td>
<td>------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td><strong>Intrapersonal</strong></td>
<td>Reflection time, meditation exercises</td>
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<tr>
<td></td>
<td>Journals, memoirs, diaries, changing behaviors,</td>
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<tr>
<td></td>
<td>habits, personal growth</td>
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<tr>
<td><strong>Naturalist</strong></td>
<td>Terrariums, aquariums, class pets, farm,</td>
<td></td>
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<tr>
<td></td>
<td>botanical garden and zoo visits, nature walks,</td>
<td></td>
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<tr>
<td></td>
<td>museum visits</td>
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<tr>
<td></td>
<td>Collecting, classifying, caring for animals at</td>
<td></td>
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<tr>
<td></td>
<td>nature centers</td>
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<tr>
<td><strong>Existential</strong></td>
<td>Working on causes, charity work, astrology</td>
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<td></td>
<td>charts</td>
<td></td>
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<td></td>
<td>Community service</td>
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**The Multiple Intelligence Theory and Language Teaching**

There is much evidence that schools influenced by Multiple Intelligence theory are affective (Gardner 2006: 83) and with understanding of the theory teacher can be better understand the learners. They can allow students to safely discover their strengths, learn in many ways and they can help students to be in control of their learning (Guignon 1998: March 12).

It is well known that schools have emphasized on reading and writing in language teaching. There are many students who don’t. The Multiple Intelligence theory opens the door to variety of teaching strategies which easily be applied in the language classroom. It gives teachers opportunity to widen modern teaching strategies by using various assessment and activities (Armstrong 2000: 51).

Teachers have to use different methods and activities to meet the needs of all students not just of those who excel in reading and writing. The theory can be used in many different ways and works well in entire school system. It offers opportunities for students to use and develop all the different intelligence not just the ones that they excel in. It also offers different styles and methods as well as various activities. Each of the intelligences is perspective in every learners ad it is part of the teachers job to look after and help children to develop their own intelligences. (Nolan, 2003: 119).

Language teachers have to be aware that students have different strengths, learning styles, and even learning potentials but with the Multiple Intelligence theory we can teach students effectively in different ways. It is a good idea to give the student a Multiple Intelligences test to see which intelligences are outstanding for each student. Then the teacher can create a learning environment that is suitable for each student. By observing the students and keeping track of how they react to different activities, it is possible
to improve the teaching by appealing to the student strength. As long as teachers use a range of different activities according to the intelligences, there will always be a time during the day or week when students have their highly developed intelligences actively involved in learning (Armstrong 2000: 51).

a. The Application of MI Theory to English Language Teaching (ELT)

When humanism began to have a decisive impact on education in the 1960s, the conventional, authoritative teacher-centered instruction gave way to the learner-centered mode of instruction. Educators started paying more attention to the impact of affective factors such as feelings, emotions, anxiety, frustration, motivation, and confidence on the process of learning (Lin, 2000). There has also been a maturing of some innovative English Language Teaching approaches, methods, and techniques over the last 20 years. Some of them have been called The Silent Way, Community Language Learning, Total Physical Response, Suggestopedia, The Natural Approach, Communicative Approach, Cooperative Learning, and Whole Language Learning (Larsen, 2000; Richard and Rodgers, 2003).

Every ELT (English Language Teaching) method or technique with its specific emphasis has been developed to meet students’ different needs or interest. These approaches can be linked to Gardner’s (1993) intention of developing or using different kinds of intelligences. The Silent Way, for example, emphasizes the development of students’ inner thinking (intrapersonal intelligence). Total Physical Response, however, emphasizes language learning through physical action (bodily/kinesthetic intelligence). Suggestopedia, uses drama and visual aids as keys to unlock a student’s learning potential; in this approach, music plays the greatest role in facilitating learning (musical intelligence). Both the Communicative Approach and Cooperative Learning seem to place its greatest emphasis upon the importance of interpersonal relationship (interpersonal intelligence) to language learning. Yet specific activities can involve students in each of the other intelligences as well. Similarly, Whole Language Learning has at its core the cultivation of linguistic intelligence, yet it uses the hand-on activities, music, introspection (through journal keeping) and group work to carry out its fundamental goals. So the Whole Language Learning approach not only emphasizes the wholeness and reality of language (verbal linguistic intelligence), but also believes the coordination of bodily/kinesthetic, musical, interpersonal, and intrapersonal intelligences are needed to promote language learning.

It is suggested here that MI theory can provide a way for all teachers to reflect upon their best teaching methods, and to figure out the reason why some methods they use work well for some students but not for others. It also may help teachers
expand their current teaching repertoire to include a broader range of techniques, materials and methods for reaching an ever wider and more various range of learners, since it may be that some students have not responded well in the past because their preferred intelligences were not being stimulated by the teaching approach used (Armstrong, 2000; Lin, 2000).

b. Using Multiple Intelligence in the Classroom

Accepting Gardner’s Theory of Multiple Intelligences has several implications for teachers in terms of classroom instruction. Since all intelligences are needed, teachers should think of all intelligences as potentially equally important across the group of students they are teaching. Within a group, some students will have a preference for using some intelligences but other students will wish to use different ones. This is in contrast to traditional education systems, which typically place a strong emphasis on the development and use of verbal and mathematical intelligence. Thus, the theory of Multiple Intelligences implies that educators should recognize and teach to a broader range of talents and skills that depend on a variety of intelligences. So one of a teacher’s attributes needs to be to encourage all students to use all intelligences, but also recognize students will have preferences for some of them.

The first step in using the Multiple Intelligence theory in ESL/EFL teaching is that for teachers to start identifying their own intelligence profiles so that they can determine their best or preferred teaching strategies taking into account human differences (Christison, 1998). After all, it is probable that the learning activities that a teacher used will often reflect his or her own intelligence profile. This in turn, presumably will mean that some students will be more attuned than other to this teaching styles and resources used. For example, teachers may avoid drawing pictures on the blackboard or stay away from using highly graphic materials in their presentation, because their spatial intelligence is not particularly well developed in their life. Or it is possible that a teacher gravitates toward Cooperative Learning strategies because he/she is an interpersonal sort of person. On the contrary, students can sometimes come up with strategies and demonstrate expertise in areas where teachers may be deficient. For example, students may provide a musical background for a learning activity or may be able to do some pictures drawing on the board. If the teachers do not feel comfortable with this approach it may be because they have a low preference for the underlying intelligences being used. Hence, a teacher can try to use MI theory to survey his/her teaching style and see how it matches up with the different intelligences (Armstrong, 2000).
Following the teacher identifying their own intelligences preferences and the impact this may have on their teaching, the second implication is to profile the students. Christison (1998) found that the more awareness the learners have of their own intelligence profile, the more they are able to utilize this knowledge in their future learning. Therefore, she proposed that an important stage of teaching with multiple intelligence is to awaken the intelligences of students through exercises and activities that make use of sensory bases (the five senses), intuition, or meta-cognition. Then the teacher can extend the preferences of using more intelligence by encouraging students to practice them. After practicing, structured lessons emphasizing different intelligences in the learning process can be employed to teach for/with an intelligence. Finally, the teacher may trigger the transfer of the intelligence to students’ daily lives by asking reflective questions which also focus in the intrapersonal intelligence.

In the classroom, Gardner recommended that integrated education would use students’ natural talents successfully. Integrated education is the system that used different educational approaches such as games, music, stories and images. If materials are taught and assessed in only one way, we will only reach a certain type of student. Students who are not good at linguistic and logical skills can still learn very well if they are taught with other methods rather than using textbooks. For example, students with spatial intelligence could understand lessons more quickly by looking at visual images rather than reading pages from textbooks. Students with good interpersonal intelligence would learn better in a group discussion instead of reading books alone. Some students might learn new words more easily by listening to songs. The student who is almost falling asleep during the logical presentation may come alive when the bodily-kinesthetic approaches start. Armstrong (2000) and Le (2001) recommends allowing the students to help design and choose the learning strategies that will work best for them.

The above discussion suggests that teaching methods and curriculum should be developed flexibly. Once a method is applied, teachers should observe and try to find out how students react to that method and whether students make good progress. The feedback received from students is a good resource to improve educational methods. So, integrated education could allow teachers to be more creative and flexible in preparing the teaching materials and presenting the lesson in class. Also, the teachers would learn more about their students and then adjust their teaching methods after a couple of class meetings. Moreover, the teachers could create
more interesting classes and feel more comfortable and confident with their teaching. If students learn well at school and gain more knowledge, they would know how to set their career to match their abilities and talents. As a consequence, students would contribute more to the society through their future work. Our society would also benefit more from individuals who had integrated education (Le, 2001).

Table 2. Multiple Intelligences: Classroom Application (Table added by Brandy Bellamy and Camille Baker, 2005)

<table>
<thead>
<tr>
<th>Teacher Centered</th>
<th>Student Centered</th>
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<tbody>
<tr>
<td>Verbal/Linguistic</td>
<td>▪ Present content verbally</td>
</tr>
<tr>
<td></td>
<td>▪ Ask questions aloud and look for student feedback</td>
</tr>
<tr>
<td></td>
<td>▪ Interviews</td>
</tr>
<tr>
<td>Logical/Mathematic</td>
<td>▪ Provide brain teasers or challenging questions to begin lessons.</td>
</tr>
<tr>
<td></td>
<td>▪ Make logical connections between the subject matter and authentic situations to answer the question &quot;why?&quot;</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Bodily/Kinesthetic</td>
<td>▪ Use props during lecture</td>
</tr>
<tr>
<td></td>
<td>▪ Provide tangible items pertaining to content for students to examine</td>
</tr>
<tr>
<td></td>
<td>▪ Review using sports related examples (throw a ball to someone to answer a question)</td>
</tr>
<tr>
<td>Visual/Spatial</td>
<td>When presenting the information, use visuals to explain content:&lt;br&gt;</td>
</tr>
<tr>
<td></td>
<td>PowerPoint Slides, Charts, Graphs, cartoons, videos, overheads, smartboards</td>
</tr>
</tbody>
</table>
c. The Multiple Intelligence Theory and the Student:
It is very important for student self-esteem that they find their strengths and that they knew how to use them. It is therefore important for teachers to know how to work with different intelligence and to be able to use various teaching methods. The activities have to be appealing and suitable for the students and it is good to work with different Is. together in order to get the student to develop the Is. that they are weaker in. Understanding the numerous ways that children acquire knowledge enables teachers to use a variety of strategies to reach
children with different types of intelligences (Cambell 2008: 187). Gardner says that our schools and culture focus most of their attention on the linguistic and logical / mathematical intelligences (Fasko 2001; 126). We value the highly communicative and logical people of our culture. however Gardner says that we should also place equal attention on individuals who show gifts in the other intelligences: the artist, architects, musicians, naturalist, designers, therapist, dancer, interviewers and others who enrich the world we live. Unfortunately many children who have these gifts do not receive much reinforcement for them in school. In fact many of the students are labeled learning disabled (ADD) (Attention on Deficit Disabled) because they do not function in the typical classroom environment. Therefore the theory of Multiple Intelligences offers a major transformation in the way that schools are run. It suggest that teachers be trained to present their lessons in a wide variety of ways using music, cooperative learning, art activities, role play, multimedia, field trips, inner reflection and much more. (Armstrong 2000:, January 15).

Teachers should build up their lessons in away which engages all or most of the intelligences. When focusing on the students needs, it is optimizes learning for the whole class. Teachers who use Multiple Intelligence Theory see the benefits such as active and successful students (Nolan 2003: 119). Gardner suggests that almost everyone has the ability to develop all eight intelligences if they are given appropriate encouragement, enrichment and instructions (Armstrong 2000: 9).

Benefits of Multiple Intelligences
Using Multiple Intelligences theory in the classroom has many benefits:

- As a teacher and learner you realize that there are many ways to be "smart".
- All forms of intelligence are equally celebrated.
- By having students create work that is displayed to parents and other members of the community, your school could see more parent and community involvement.
- A sense of increased self-worth may be seen as students build on their strengths and work towards becoming an expert in certain areas
- Students may develop strong problem solving skills that they can use in real life situations

Importance of MI Theory in Education:
Since Gardner proposed his Multiple Intelligences Theory in his book, *Frames of Mind* in 1983, a great majority of educators have been applying it in education. They have considered the idea of multiple intelligences as a ‘powerful medicine’ for the shortcomings that are existent in the educational
system. Whether they used it as a teaching approach, method or strategy or as an assessment tool, they agreed on that instruction should be tailored according to the multiple intelligences of the students. They called for considering the strengths of the students that may exist in other areas other than the logical-mathematical and verbal linguistic areas. Common sense tells us that it is so hard to deny the importance of the ‘non-academic’ intelligence such as musical activities, self-awareness, or visual spatial abilities (Shearer, 1999).

In the following section, there is an illustration of the points that give value and importance to the application of MI Theory in the educational settings. These points show the advantages of MI Theory in the field of education and encourage all the teachers around the world to use it in their teaching in a way that suits the subject matter they teach and the educational conditions they have.

a. MI Theory as a Tool to Achieve More Success

Teachers are strongly motivated to help all students to learn. Therefore, they have explored MI Theory as a tool that makes more kids learn and succeed. The great majority of the classrooms are characterized by the existence of scholastic winners and losers. MI Theory is important here because it teaches us that all the kids are smart, and that they differ only in the way in which they are smart. Thus, all children have potential and using MI increases the opportunities for students to learn and succeed, giving adults more ways to grow professionally and personally (Hoerr, 2000:x).

b. MI Makes Learning More Enjoyable

Students learn better if they like what they are learning and enjoy it. It is hard for students to learn without interest. When students do not like what they learn, they feel bored and tired even if they are able to learn well and succeed in the final exam. Therefore, it is better to create an enjoyable classroom atmosphere in which students like what they learn and enjoy it. Using MI Theory in the classroom can help teachers to create such an encouraging atmosphere: “Students learn best when they enjoy what they are doing. Giving them the opportunity to display their talents, learn new skills without fear of embarrassment or failure, and laugh in the process makes the learning experience rewarding for both teacher and student” (Bailey, 1999:37).

All students are different. No two persons are exactly the same even the identical twins. Even the same person is different from one period to another or from one situation to another in many ways. Difference is the rule and stability is the exception. This is applied to students while they are learning in the classroom: “It is a fact of classroom life that what interests
one student leaves another bored, literally, to distraction. It is also a fact that the student who is the most enthusiastic on Tuesday is often the one who is the most bored on Wednesday. This phenomenon can leave students feeling shortchanged and teachers feeling frustrated and guilty for failing to reach their students. The theory of Multiple Intelligences (MI)…not only helps explain this phenomenon, but helps teachers find ways around the obstacles to learning” (Bailey, 1999:36). It is evident that we will never reach all the learners, whatever approach to teaching we adopt, unless we teach multi-modally and cater for all the intelligences in our lessons (Berman, 2001). Therefore, MI Theory is greatly required so as to deal with the different students who have different minds. It will involve all the students with their different personalities to have more chance for learning and achieving success in spite of these differences that cannot be considered.

**Multiple Intelligences-Based Instruction:**

Multiple Intelligences Theory and its applications in the educational settings are growing so rapidly. Many educators began to adopt MI-Based Instruction as a way to overcome the difficulties which they encounter with their students as a result of their individual differences and their learning styles. These difficulties may be represented in their inability to reach most of their students. As a result, they become frustrated and their students lose interest in the teaching learning process as a whole. These difficulties may be caused by the uniform way in which they teach their students: “There are currently thousands of MI teachers and ten thousands of students undergoing MI based classroom instruction” (Campbell, 2000:12).

Once Multiple Intelligences Theory is understood, it can be applied in education in a variety of ways. There is no one definite way through which the theory can be applied in education. The theory is very flexible and it can be adapted to the context in which it is applied. “The theory can be implemented in a wide range of instructional contexts, from highly traditional settings where teachers spend much of their time directly teaching students to open environments where students regulate most of their own learning” (Armstrong, 1994:51).

Thus instruction can be modified and organized in the light of MI Theory. The theory in this case acts as a framework for teaching upon which teaching is organized: “On a deeper level…MI theory suggests a set of parameters within which educators can create new curricula. In fact, the theory provides a context within which educators can address any skill, content, area, theme, or instructional objectives, and develop at least seven ways to teach it. Essentially, MI Theory
offers a means of building daily lesson plans, weekly units, or monthly or year-long themes and programs in such a way that all students can have their strongest intelligences addressed at least some of the time” (Armstrong, 1994:57). Using MI in instruction means that students learn in different ways and express their understanding in many ways. Using paper and pencil measures as traditional measures limits the students’ capacity to the linguistic skills which they use in writing their answers (Hoerr, 2000:12-14). Under the use of MI-Based instruction, the students are treated as individuals. The students’ talents and interests are not ignored because it is not fair to concentrate on some students and neglect others whose capacities and talents are not well-identified. This idea is emphasized by Hoerr (2000) who gives a definition of MI approach in the light of which instruction is delivered in a way that considers students’ interests and talents: “An MI approach means developing curriculum and using instruction that taps into students’ interests and talents. Students are given options, different ways to learn, and they share responsibility in their learning” (Hoerr, 2000:12).

Gardner (1999:151) proposed another alternative to the traditional way of learning which is called ‘individually-configured education’. This way considers individual differences seriously and crafts practices that can be useful to different kinds of minds. In this type of education, the human individual differences are given primacy to anything else. The students are not obliged to learn in a uniform way in which the student who has a different kind of mind is viewed as a stupid one. This is a very limited view of this student who is not linguistically or mathematically talented. This unfair view does not allow the other talents to come out. Instead, the individual talents and interests are given more focus, and are also allowed to come out. Consequently, the teacher’s role is different from the one he used to perform in the traditional way of instruction: “In the traditional classroom, the teacher lectures while standing at the front of the classroom, writes on the blackboard, asks students questions about the assigned reading or handouts, and waits while students finish their written work. In the MI classroom, the teacher continually shifts her method of presentation from linguistic to spatial to musical and so on, often combining intelligences in creative ways” (Armstrong, 1994:50). The teacher’s role has to be changed, simply because the philosophy under which the new role is performed is completely different from the old one: In the old philosophy, which is completely teacher centered, instruction is dominated by the teacher who is considered the source of
information and the implanter of knowledge. Using MI theory in education involves using it as a content of instruction and as a means of conveying this content at the same time. This indicates that using MI used is to facilitate instruction as much as possible, and reaching all the students at the same time: “Under MI Theory, an intelligence can serve both as the content of instruction and the means or medium for communicating that content. This state of affairs has important ramifications for instruction. For example, suppose that a child is learning some mathematical principle but that this child is not skilled in Logical-Mathematical Intelligence. The child will probably experience some difficulty during the learning process…In the present example, the teacher must attempt to find an alternative route to the mathematical content—a metaphor in another medium. Language is perhaps the most obvious alternative, but spatial modeling and even bodily-kinesthetic metaphor may prove appropriate in some cases” (Walters and Gardner, 1999:74-75).

In teaching English, Multiple Intelligences-Based Instruction can be effective in many ways: First of all, the students are given many options and opportunities to express themselves in the English language. Second, students are not confined to answer their exams using only two types of tests: “Using MI in curriculum and instruction means that students learn and show their understanding in many different ways. While paper and pencil measures--essays and objective tests--have their role, they invariably limit the students’ responses to a few intelligences…By limiting students to writing their answers, relying on their linguistic skills, the teacher may find out whether a student has a good command of the English language and writes well, but she may shortchange students’ understanding in other ways” (Hoerr, 2000:13-14).

To base the instruction of the English language on MI Theory means that the teacher should use a variety of teaching strategies which should be used in a way that makes this instruction address the intelligences which the students possess. In this way, the English language is taught in a natural atmosphere. This is a model of instruction which applies the MI philosophy: “On one level, MI Theory applied to the curriculum might be best represented by a loose and diverse collection of teaching strategies. In this sense, MI Theory represents a model of instruction that has no distinct rules other than the demands imposed by the cognitive components of the intelligences themselves. Teachers can pick and choose from (many)
activities, implementing the theory in a way suited to their own unique teaching style and congruent with their educational philosophy (as long as that philosophy does not declare that all children learn in the same way)” (Armstrong, 1994: 57).

Catering for the various intelligences which the students possess is not an easy task; it needs much effort from both the teacher and the students. The teacher is obliged to achieve a match between the standard curriculum and the student’s proclivities: “Making the match between the standard curriculum and each student’s proclivities is not easy, but progress can be achieved with the efforts of teachers and students. Teachers can take an active role by shaping their presentations of the curriculum to fit the needs of a wider range of students. Experienced and successful teachers often cater to a range of students by teaching each part of the curriculum in many different ways” (White, 1995:186). This means that those successful and experienced teachers do not deal with some concept or some content area in a uniform way. Rather they diversify their methods of presentation in such a way that the same concept or content area is dealt with in many different ways. This will result in the involvement of more of the students’ multiple intelligences at the same time, and thus, involving more students in the teaching-learning process. Thus they provide the learners with several opportunities to understand and learn the same concept: “They tend to revisit a key concept or theme often and with variations to provide several opportunities for students to approach a concept from different perspectives. In multiple intelligences terms, this variety provides the multiple paths to understanding necessary to engage the multiple intelligences that students bring to the classroom” (White, 1995: 186).

To develop his instruction under the MI philosophy, the teacher has to do his best in order to develop the materials in a way that makes them appropriate to address the students’ multiple intelligences. In other words, the teacher has to translate the linguistic materials into activities that cope with MI Theory. The teacher of English, for example, has to consider the linguistic content he is dealing with and try to involve other intelligences and translate this content, not into French for example, but into the languages of these intelligences. “The best way to approach curriculum development using the theory of multiple intelligences is by thinking about how we can translate the material to be taught from one intelligence to another. In other words, how can we take a linguistic symbol system, such as the English language, and translate it-not into other linguistic languages, such as Spanish or French, but into the languages of other intelligences, namely, pictures, physical or musical expression, logical symbols or concepts, social
The following seven-step procedure suggests one way to create lesson plans or curriculum units using MI Theory as an organizing framework: (Armstrong, 1994:58:60)
1 - Focus on specific objectives
2 - Ask key Multiple Intelligences Questions
3 - Consider the Possibilities
4 - Brainstorm
5 - Select Appropriate Activities
6 - Set Up to a Sequential Plan
7 - Implement the Plan.
However, we should keep in mind that the theory is not a rigid model that must be applied in a certain way. The teacher can adapt the theory in a way that serves his stated objectives and carry out his goals. He should be thoughtful and creative so as to use it effectively inside his classroom. In this way the theory becomes a means to an end not an end in itself: “Although the multiple intelligences theory provides an effective instructional framework, teachers should avoid using it as a rigid pedagogical formula. One teacher who attempted to teach all content through all eight modes every day admitted that he occasionally had to tack on activities. Even students complained that some lessons were really stretching it. Instructional methods should be appropriate for the content” (Campbell, 1997). This means that the theory is very flexible and has many ways of application in the teaching process. Also we should keep in mind that it is not obligatory to use all the intelligences to teach a certain content. This may take so much time. Also, this makes the learning process boring instead of making it interesting to the students. Therefore, we should always ask ourselves about the main idea of this model in the teaching learning process. The main idea lies in the fact that we can teach anything in a variety of ways. This makes our teaching appeal to many students: “The master code of this learning style model is simple: for whatever you wish to teach, link your instructional objectives to words, numbers or logic, pictures, music, the body, social interaction, and/or personal experience. If you can create activities that combine these intelligences in unique ways, so much the better” (Armstrong, 1994). Gardner (1999) indicated three positive ways in which MI can be – and has been – used in schools:
1) The cultivation of desired capacities.
2) Approaching a concept, subject matter, or discipline in variety of ways.
3) The personalization of education.
Some Strengths of the Theory in Relationship to the Learning Process:
There is popular support for the concept of multiple intelligences. Some strengths of the theory in relationship to the learning process are as follows:
□ It serves as impetus of reform in our schools, “leading to a reevaluation of those subjects typically taught in school, with increased emphasis placed on the arts, nature, physical culture, and other topics traditionally limited to the periphery of the curriculum” (Armstrong, 2003: 4).
□ It is child centered and develops children’s innate potential rather than requiring them to master extraneous academic information.
□ It encourages children to grow and to develop their potential as responsible human beings.
It challenges educators to find “ways that will work for this student learning this topic” (Gardner, 1999: 154).
As Gardner (1999: 91-92) has written:
I would happily send my children to a school that takes differences among children seriously, that shares knowledge among differences with children and parents, that encourages children to assume responsibility for their own learning, and that presents materials in such a way that each child has the maximum opportunity to master those materials and to show others and themselves what they have learned and understood.

**Effectiveness of Using Multiple Intelligences to Teach English**
There has been quite a lot of discussion about the effectiveness of using multiple intelligences to teach.

The basic theory of multiple intelligences is that there are a number of different types of intelligences. Traditionally, schools use logical and verbal intelligences to teach languages - English in this case. However, it is also possible to teach English through the use of other types of intelligences. Each type of intelligence provides a 'hook' through which English can be acquired. Some students excel in logical exercises such as learning through analysis using grammar charts, conjugation tables, etc. Other learners who excel in linguistic learning styles may profit from exercises focusing on word forms such as prefix, suffix activities, etymology research, etc. While these English teaching exercises prove helpful to many students, they may come up short when working with students who don't do well with these types of exercises. According to Richards and Rodgers “language is not seen as limited to a ‘linguistics’ perspective but encompasses all aspects of communication” (Richards and Rodgers 2001: 117).

MIT is an excellent tool to enable teachers to plan attractive ways to provide learners with language learning practice.
The MIT instructional perspective proposes that language learning can be favoured by using a variety of learning tasks which call upon diverse intelligences. The teacher offers a choice of tasks, not Impacts of Multiple Intelligences on learning
English in the ESL classroom to teach to specific intelligences but to give learners the opportunity of apprehending information in their preferred way, as well as to promote the development of their other intelligences. Multiple intelligence theory strives to serve all students by reaching out to their respective strengths. We will now overview multiple intelligences and consider how these intelligences are involved in foreign/second language learning and teaching.

Conclusion
In the second language classroom it is possible to motivate learners by different activities relating to the different intelligences. Providing a variety of language activities that stimulate different intelligences proposed by Gardner (1999) makes multiple memory pathways to produce sustained deep learning (Schumann 1997).

A Referential Lesson Plan
In order to help the English language teachers gain a better understanding about how MI theory applies to classroom teaching, I sketched a lesson plan on the topic titled "Customs Vary with Culture" selected from Mosaic One: A Content-Based Reading, a textbook used in my Freshman English Course, for reference.

Time Limitation: 3 consecutive periods
Student Level: Freshmen from the Dept. of Public Finance, NCCU Class Size: 35 students Teaching Method (s): Whole language learning and task-based learning.

1st period:

Classroom Activities Approximate Time Intelligence(s)
1. Giving background knowledge about the article and its author. 5 mins. Verbal/Linguistic (through lecture)
2. Brainstorming on the priming questions, e.g., What purpose do you think the author had for writing this article? And/or, What does the title imply to you? 10 mins. Verbal/Linguistic (through informal speaking) Intrapersonal, and Interpersonal
3. Listening to the taped article to grasp the main ideas. 5 mins. Verbal/Linguistic (through listening)
4. Silent reading and oral reading for comprehension through the strategy of "topic sentence" detecting from each paragraph. 20 mins. Verbal/Linguistic (through reading and reading strategies).
5. Vocabulary learning through the strategy of guessing meaning from context or form. 10 mins. Verbal/Linguistic (through vocabulary and vocabulary learning strategies)

2nd period:

Classroom Activities Approximate Time Intelligence(s)
1. Group discussing on the organization of each paragraph (e.g., by deductively expanding, inductively generalizing, etc.) and reviewing its main idea(s), too. 15 mins. Verbal/Linguistic, (through discussion) Interpersonal, and Logical/Mathematical
2. Doing exercises listed at the back of the article either orally or in writing by working in groups and/or individually. 25 mins. Verbal/Linguistic (through speaking and writing) and Interpersonal
3. Commenting on the concepts/ideas one agrees or disagrees in the article, and giving his/her reasons. 10 mins. Verbal/Linguistic (through oral
presentation) and Intrapersonal 3rd period:
With the reference of activities listed at the back of the article, I design five different tasks to be completed, (10 minutes for the performance/presentation of each task).

Students can choose which task to work on either by joining a group or working independently:
**Task-1 (work in group)**
Look at the two drawings, concerning the customs of hand-shaking and social distance. Discuss in group and report the similarities and differences that may exist between the East and the West, or make a verbal debate against each other. (Visual/Spatial, Interpersonal, Logical, and Verbal/Linguistic Intelligences.)

**Task-2 (work in group or individually)**
Find a song concerning cultural differences or a folk song from a particular culture and enjoy listening and singing it with necessary explanation of its lyrics. (Musical/Rhythmic and Verbal/Linguistic Intelligences.)

**Task-3 (work in group)**
Write a skit based on a culture shock anecdote and performing it. (Verbal/Linguistic, Bodily/Kinesthetic and/or Visual/spatial, and/or Musical/Rhythmic Intelligences.)

**Task-4 (work in group)**
Discuss in small group a problem or an embarrassing situation you may confront with due to cultural conflicts, and come up a solution by drawing a flowchart to show its procedure. (Logical/Mathematics and Visual/Spatial Intelligences.)

**Task-5 (work in group or individually)**
Search for some unique words, or body language developed in a culture due to its particular natural environment, e.g., geographic location, climate, etc. (Verbal/Linguistic and Naturalist Intelligences.)

**References**

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