

Applying Multiple Intelligences Theory in Undergraduate EFL Classroom

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Abstract:

Howard Gardner's Multiple Intelligences (MI) Theory has sparked a revolution in educational field in the past two decades. According to him, each person is unique and has a blend of intelligences namely Linguistic, Logical/mathematical, Spatial, Musical, Bodily/kinaesthetic, Interpersonal, Intrapersonal and Naturalist Intelligences. People differ in the strengths and combinations of intelligences, which can be enhanced through training and practice. The broad view of human intelligences in MI theory gives teachers a complex model from which to construct curriculum and offers teachers a way to examine their best teaching techniques and strategies in light of human differences. In the past two decades, teachers have interpreted the theory in different ways and applied it to their lesson planning and curriculum development to maximize learners' potential. In contrast to the prosperous application in the west, the relevant study started in China less than a decade ago, with the main focus on the introductory articles of MI theory in pre-school and primary school level. Very few researches were conducted in EFL programs at college level. Therefore, the primary objective of this paper is to explore the feasibility of applying the MI theory to the undergraduate EFL classroom in China. The study offers application proposals in lesson designing, choosing materials, class activities and assessment, mainly focusing on the last two aspects. As for the class activities, the two major suggestions in well-rounded class activities are: (1) the eight activity corners, referring to the eight self-access and group activity corners based on the eight intelligences, and (2) the student project work, which includes MI projects, curriculum-based projects, thematic-based projects, resource-based projects and student-choice projects, designed to promote self-directed learning. As for assessment, four types of alternative assessment are highlighted. The paper aims at seeking ways to facilitate foreign language acquisition and to use language to encompass all aspects of communication. Accordingly, it challenges EFL teachers to engage in imaginative, creative and exploratory reform, to use language to help all students discover and develop their strengths, to stimulate students' whole person development in the long run.

Key Words: MI theory; undergraduate EFL; English acquisition; whole person development

1. Introduction

Howard Gardner's Multiple Intelligences (MI) Theory, described in *Frames of Mind* (1983), has sparked a revolution in a variety of settings both in the U.S. and around the world. According to him, each person is unique and has a blend of intelligences (1999:45) namely Linguistic, Logical/mathematical, Spatial, Musical, Bodily/kinaesthetic, Interpersonal, Intrapersonal and Naturalist Intelligences. Although MI theory originally intended to challenge the traditional view of intelligence as a single capacity, educators and teachers have embraced his premise, interpreted it in different ways and applied it to their daily teaching to maximize learners' potential. Christison (1998) claims that "few theories have been embraced more enthusiastically by EFL teachers in the past few years than Gardner's theory of multiple intelligences." In contrast to the prosperous application in the west, relevant theoretical studies started in China less than a decade ago. Scarcely no research of application was conducted in EFL programs at college level. Therefore, this article intends to explore the feasibility of applying the MI theory to the undergraduate EFL classroom with main focus on lesson designing, choosing materials, class activities and assessment, aiming at promoting MI instruction and facilitating foreign language acquisition and whole person development.

2. Multiple Intelligences Theory

2.1 The Definition of Intelligences

There are as many as 150 definitions of intelligence in the field of psychology. Instead of considering intelligence in terms of mental performances, Gardner regards it behaviorally. According to him, an intelligence is the ability or captivity to "solve problems or to fashion products" in a cultural setting (1983:61; 1993:15; 1999:33-34). In other words, intelligence is what people can do and may vary drastically from culture to culture.

Gardner (1999) proposed two complementary claims for his MI theory. First, the theory is "an account of human cognition in its fullness" (44). Instead of seeing people as rational or irrational, Gardner described human beings as organisms possessing a set of intelligences. Second, "We each have a unique blend of intelligences" (45). This uniqueness needs to be cherished and taken good advantage of. As Gardner indicates, most people can be outstanding in one or two intelligences. Intelligences are not fixed at birth but educable; they change and grow in response to a person's experiences and may vary drastically from culture to culture. Furthermore, intelligences are most completely realized in the process of solving problems and fashioning products in real-life situation

2.2 The Eight Multiple Intelligences

In *Frames of Mind* (1983), Gardner presented five other intelligences besides the traditionally valued Linguistic and Logical-mathematical intelligences, namely Spatial, Musical, Bodily/kinaesthetic, Interpersonal and Intrapersonal Intelligences. The

eighth intelligence -- Naturalist Intelligence was proposed in 1997(Checkley), judged by the eight criteria proposed in *Frames of Mind*, and “proved as firmly entrenched as the other intelligences”(Gardner, 1999:49). The eight intelligences are summarized as follows:

Linguistic intelligence involves sensitivity to spoken and written language, the ability to learn languages and the capacity to use language to accomplish certain goals. This intelligence includes such skills as the abilities to remember information, to convince others, and to talk about language itself. Lawyers, writers, editors, interpreters, poets are among the people with high linguistic intelligence.

Logical-mathematical intelligence involves the ability to analyse problems logically carry out mathematical operations, and investigate issues scientifically. People of this type are likely to understand the basic properties of numbers and principles of cause and effect and to predict. Mathematicians, logicians, doctors, programmers, engineers and scientists exploit this intelligence.

Spatial Intelligence features the potential to recognize and manipulate the patterns of wide space as well as the patterns of more confined areas. In other words, it refers the ability to sense form, space, color, line and shape. Navigators, pilots, sculptors, decorators, painters, surgeons, chess players or architects belong to this type.

Musical Intelligence entails skill in the performance, composition, and appreciation of musical patterns. Musicians, composers, conductors, singers, music critics are among people with musical intelligence.

Bodily/kinaesthetic Intelligence entails the potential of using one’s whole body or parts of the body to express ideas, solve problems or fashion products. Obviously, dancers, actors, craftsmen and athletes foreground this intelligence.

Interpersonal Intelligence denotes a person’s capacity to understand the intentions, motivations, and desires of other people and to work most efficiently with others. Salespeople, teachers, clinicians, religious leaders, political leaders, and actors all need acute interpersonal intelligence.

Intrapersonal Intelligence refers to the ability to understand oneself, to have an effective working model of oneself -- including one’s own desires, fears, moods, strengths, weaknesses and capacities -- and to use such information effectively in regulating one’s own life. Therapists, religious leaders belong to this type.

Naturalist Intelligence refers to the ability to recognize and classify plants, minerals, and animals, including rocks and grass, and all variety of flora and fauna. People with naturalist intelligence are biologists, animal protectors and the like.

Apart from the above intelligences, Gardner proposed **Existential Intelligence** as a candidate, which refers to the human inclination to ask very basic questions about existence. However, it lacks good brain evidence on its existence in the nervous system—one of the eight criteria for intelligence. After further experimental tests, he made the decision not to add it in the list. Rather he took it as a semi-intelligence “at least for now”, “At most, I am willing, Fellini-style, to joke about 8 1/2 intelligences.” (1999:66). Gardner’s discovery of Multiple Intelligences is a dynamic one and the list is not meant to be final or exhaustive. The point is not the

exact number of intelligences, but the plurality of the intellect (Christison, 1998).

3. Applications in Undergraduate EFL Classroom

Gardner believes that all humans have multiple intelligences, but people differ in the strengths and combinations of intelligences, which can be enhanced through training and practice. MI theory has been interpreted as a framework for rethinking school education and it “offers EFL teachers a way to examine their best teaching techniques and strategies in light of human differences” (Christison, 1998). It does not dictate what and how to teach but “give[s] teachers a complex model from which to construct curriculum and improve themselves as educators” (Campbell, 1997). Pedagogy is most successful when learner differences are acknowledged, analyzed and accommodated in teaching. Therefore, a successful teacher is one who actively responds to the differences, helps all students discover and develop their talents or strengths, and facilitate maximizing students’ potential. In MI approach, “Language is not seen as limited to a ‘linguistics’ perspective but encompasses all aspects of communication” (Richard&Rodgers, 2001:126). As a result, EFL teachers not only think them merely language teachers but also become facilitators, observers, curriculum developers, lesson designers and analysts, finders or inventors, and even orchestrators.

3.1 Lesson Designing

A good lesson designing must follow some major principles such as variety, flexibility, learnability and linkage, either done at macro or micro level (Wangqiang et al, 2001:25). Since each individual has a unique cognitive profile, there is no single formula for teaching and lesson design can be done in diverse even conflicting ways. As a matter of fact, there may be as many models of MI teaching as there are teachers. EFL teachers may either use MI as entry points into lesson content or engage all eight intelligences whole time; They may either apply MI approach each day or use it just occasionally; They may either plan alone based on their intelligence strengths or team up with colleagues so that they can increase both their own and their students’ options. No matter what option they select, instructional methods should be appropriate for the content and course.

One of the objectives of MI pedagogy is to make language learner a better designer of his/her own learning experiences so that he/she becomes more goal-directed and fulfilled and happier (Richards&Rodgers, 2001). Such person is more likely to become better language learner and user. Therefore, it is always necessary to catalogue the students’ intelligence profiles by observing in class and using MI inventory like the one designed by Silver and his companions (2000:101).

3.2 Class Activities

As stated earlier, intelligences are most completely realized in the process of solving problems and generating products in real-life situation. In language learning, well-rounded class activities function as real-life context, in which learners are

immersed to the development of the whole person. Therefore, one of the language teachers' roles is to accommodate the diversity of intelligences and ways of learning in the students. Following are descriptions of two class activities could be possibly applied in undergraduate EFL classroom.

3.2.1 Eight Activity Corners

It refers to the eight self-access and group activity corners based on the eight intelligences. The teacher set up eight activity corners that the students rotate from one corner to another in certain order and in limited time. In this way, all students confront their weaknesses and strengths. They make good use of their own intelligences in a creative way, at the same time observe and cooperate with those with other intelligences and learn from one another. The suggested activities that parallel each of these particular intelligences can be shown in Table 1.

3.2.2 Student Project Work

It includes MI projects, curriculum-based projects, thematic-based projects, resource-based projects and student-choice projects, designed to promote self-directed learning. During the process of the project work, students learn to ask researchable questions, to identify varied resources, to create realistic time lines, and to initiate, implement and bring closure to a learning activity. By working through these projects, students could naturally engage several intelligences. Perhaps more important, by initiating and completing projects of their choice, they would acquire valuable autonomous learning skills.

3.3 Choosing Materials

One of the distinct features and tendencies in undergraduate EFL teaching is to facilitate students to obtain knowledge and information rather than merely emphasize on language skills (Tian, in Johnson, 2002). Therefore, choosing appropriate material and use it creatively should be a basic requirement for language teachers. MI approach challenges EFL teachers not only in lesson plan and activity designing, but also in seeking for teaching materials. They must concentrate on providing all kinds of resources which give students experimental learning relevant to their intelligences' needs. In addition, teachers must concentrate on making such resources/materials clearly available by thinking through and simplifying the practical steps in order to use the resources. In reference to resources, apart from the usual resources – books, articles, pictures, equipments, VCR, DVD, tapes, etc., there are human resources as well. People in the community or even students themselves could be useful human resource to contribute to the class. According to Carl Rogers, one of the key leaders of Humanistic Psychology, teachers are the most important and valuable resource by “allowing students to know themselves as people, by making knowledge and experience clearly available to the students”(1994:187). Examples of materials helpful to particular intelligences can also be shown in Table 1.

Table 1. Intelligences with corresponding materials and activities adapted to undergraduate EFL teaching.

	interest	teaching materials	teaching activities
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Linguistic	reading, writing, telling stories, playing word games	books, newspapers, journals, tapes and tape-recorder, paper, stories	lectures, discussion, storytelling, debate, reading, writing, reports presentation, journal writing, word games
Logical-Mathematical	experimenting, questioning, figuring out logical puzzles, calculating	materials to experiment with, science materials, video-tapes showing scientific discovery, computer, software	Matching, gap-filling, data analysis, comparison&contrast, scrambled story, diagrams logical-sequential presentation, puzzles, computer games, statistical arguments, ordering, problem-solving, science video
Spatial	designing, drawing, visualizing, doodling	graphs, diagrams, mind maps, art, peripherals, LEGO, storyboards, VCR, movies, slides, puzzles, charts, illustrated books,	Video show, illustrating concepts and things, reading maps and interpreting directions, imagination games, maze& puzzle games, visual diagrams, cartoons, Ads designing
Bodily-Kinesthetic	dancing, running, jumping, building, touching, gesturing	things to build, sports and physical games materials, tactile things, hands-on learning materials,	role play, drama, dancing, relaxation exercises, brain gym, craftwork, flashcards, acting out an event, cooperative or competitive games, investigations
Musical	singing, whistling, humming, tapping feet and hands, listening	Song and music tapes, videos of concerts, musical instruments	sing-along, dubbing, background music, creating songs to summarize concepts or ideas, dictation of songs, make up story with songs, musical, anchor contest, composing
Interpersonal	leading, organizing, relating, manipulating, mediating, partying	materials for group games, surveys and polls, questionnaires, access to clubs and community mentors/apprentices hips resource	group&circle work, pair work, brainstorming, peer teaching, questionnaires, surveys and polls, board games, interactive software programs, team problem solving, social gatherings, arrange party, English corner or club
Intrapersonal	setting goals, meditating, dreaming, planning, reflecting	quiet environment, self-paced projects, reflective materials, choices	project work, independent study, individual instruction, writing, monitoring of own skills, researching and online activities, essay learning log&diaries,

			reflective learning activity, personal goal setting, pole-bridging activities
Natural istic	gardening, caring for earth, playing with pets, investigating nature, raising animals	access to nature, opportunities for interacting with animals, tools for investigating nature, pictures and videos showing the nature	outdoor learning, observation notes, classifying & categorizing activities, background music of sounds of nature, hands-on learning, picnic, taking nature walks or field trips, environmental protection activities

(partially adopted from Armstrong, 1994)

3.4 Assessment

A good assessment instrument can be a learning experience. In Gardner's eyes, assessment is defined as "the obtaining of information about the skills and potentials of individuals and useful data to the surrounding community" (1993:174). The basic principles of MI assessment are diversity, authenticity and expansibility. One important feature of MI evaluation is context-driven assessment. Rather than being imposed externally, learners are put in the natural learning environment to work on problems or projects. When an individual is assessed in the actual working conditions, it is possible to make much better prediction about his/her ultimate performance. The other feature of MI evaluation is intelligence-based and intelligence-fair assessment. Since each intelligence displays a characteristic set of psychological processes, it is important that these processes be assessed in an "intelligence-fair" manner. Gardner suggests using portfolios/processfolios, domain-project and concepts associated with apprenticeship (1993:179) to evaluate students.

When it is applied to undergraduate EFL classroom, both context-driven and intelligence-fair assessment can be achieved although it might be a time consuming and costly process. Students should not only be asked to fill in blanks, multiple choices, cloze, dictation, true/false, and supply short answers. In addition, alternative assessment should be highlighted. The following are some suggestions:

- a. Apart from the traditional evaluations as memory test, essay exams, use a variety of innovative testing procedures such as oral interview, term papers, computer-based and web-based tests & presentations, portfolio, self and peer assessment, conferencing, diaries and learning log, etc. Attentions should also be given to performance-based and task-based language testing in which students experience real-world tasks in the target language (Norris, 2000).
- b. Keep checklist and journal to record observations of students' multiple intelligences performance. It would hardly be possible if the teacher has a class of 40 students or even more. However, writing a couple of lines about each student each week observational data may pay off in the long run.
- c. Keep a MI assessment data, which consists of several kinds of documents,

including photos, sketches, samples of school work, audio cassettes, videotapes, color photocopies, and so on.

- d. Conference with other teachers to evaluate students' multiple intelligences.

The assessment in the list may not be as easy to design as the multiple-choice test, but they are more likely to “elicit a student’s full repertoire of skills and yield information that is useful for subsequent advice and placement”(Gardner, 1993:178).

4. Conclusion

Instead of imposing an inflexible structure, MI theory is to catalyse ideas. therefore, MI model should not be seen as rigid or prescriptive pedagogical formula. Rather, it is a framework by which teachers engage in creative, imaginative, thoughtful, exploratory, trial-and-error reform. In reality, it is almost impossible to cater for all the intelligence types in each of the lessons. It takes time, patience, imagination, and creativity to be successful. However, as Gardner claims, “we each have a unique blend of intelligences leads to the most important implication of theory for the new millennium” (1999:45). MI approach is becoming a promising and increasingly popular approach to characterize the uniqueness of learners and to develop instruction in response to this uniqueness. Therefore, integrating MI theory into undergraduate EFL classroom worth experimenting to facilitate English acquisition and whole person development. As a result, EFL teachers will be more rewarding and effective teachers if they take the challenge and apply MI approach to their daily teaching. Likewise, the learners will be more effective learners and fully functioning people when matched their intelligence uniqueness with the language learning.

Bibliography:

- Armstrong, Thomas. 1994. *Multiple Intelligences in the Classroom* [M]. Alexandria, Va.: Association for Supervision and Curriculum Development.
- Campbell,Linda. 1997. How teachers interpret MI theory [J]. *Educational Leadership* 55/1:15-19
- Checkley, Kathy. 1997. The first seven and the eighth [J]. *Educational Leadership* 55/1:8-13
- Christison, M.A. 1998. Applying multiple intelligences theory in preservice and inservice TEFL education programs [J]. *English Language Teaching Forum* 36/2:2-13
- Gardner, Howard. 1993. *Multiple Intelligences: The Theory in Practice* [M]. New York: Basic Books
- Gardner, Howard. 1993 (1983). *Frames of Mind: The Theory of Multiple Intelligences* [M]. New York: Basic Books
- Gardner, Howard. 1999. *Intelligence Reframed* [M]. New York: Basic Books
- Johnson, Keith. 2002. *An Introduction to Foreign Language Learning and Teaching* [M]. Beijing: Foreign Language Teaching and Research Press.
- Norris, J.M. 2000. Purposeful assessment [J]. *English Teaching Forum* 38/1:18-19.
- Richard, J. C. & Rodgers, T. S. 2001. *Approaches and Methods in Language Teaching* [M].

- London: Cambridge University Press.
- Rodgers, Carl, et al. 1994(1963). *Freedom to Learn* [M]. Prentice Hall,Inc.
- Rodgers, T. 2000. Methodology in the new millennium [J]. *English Teaching Forum* 38/2:2-13.
- Silver H.F. et al. 2000. *So Each May Learn: Integrating Learning Styles and Multiple Intelligences* [M]. Silver Strong&Associates,Inc.
- Wang Qiang, et al. 2000. *A Course in English Language Teaching* [M]. Beijing: Higher Education Press.