Multiple Intelligences in the Classroom

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The two-week English teachers' training courses, started from the 15th to 26th of August, in Homerton College of Cambridge offered diverse views of English teaching and learning. Different topics, including young learners, classroom management, listening, writing, speaking through games, integrating skills and multiple intelligences in the classroom, elicited enthusiastic discussions between lecturers and listeners. There were also various cultural talks or social programs run in the campus, which provided great opportunities for English teachers from different countries to experience, to exchange and to share.

In this report, I would like to focus on one of the topics mentioned above－multiple intelligences (abbreviated as MI) in the classroom, lectured by Chaz Puliese, a teacher trainer who has been in EFL (English as a foreign language) for 20 years. The report is based mainly on the content of the lecture he gave. However, some more detailed information will be added in order to give more complete picture of the topic. My personal application of the multiple intelligence theory in English teaching in my classroom and my reflection will also be discussed in the later part.

The definition of multiple intelligences

The widely held notion that intelligence is a single general capacity possessed by every individual to a greater or lesser extent has been challenged since Howard Garner's seminal work, *Frames of Mind: The Theory of Multiple Intelligences* (Gardner, 1983/1993) was first published in 1983. In *Frames of Mind*, Gardner outlines a new cognitive theory of human intellectual competences: each individual possesses multiple intelligences rather than one single intelligence. He explains the need for a theory of cognition that encompasses various distinct human faculties. In *Intelligence Reframed: Multiple Intelligences for the 21st Century* (Gardner, 1999b), Gardner offers a more refined definition of an "intelligence". He conceptualizes an intelligence to be "a biopsychological potential to process information that can be activated in a cultural setting to solve problems or create products that are of value in a culture" (Gardner, 1999b, pp. 33-34).

Based on this definition, Gardner then lays out eight criteria to determine the specific human intelligences with evidence from the fields of psychology, biology, and anthropology to delineate eight criteria.

From the biological sciences, Gardner discovers two determining factors:

• "the potential of isolation by brain damage"

• "an evolutionary history and evolutionary plausibility" (Gardner, 1999b, p. 36).

Two other criteria emanate from logical analysis:

• "an identifiable core operation or set of operations"

• "susceptibility to encoding in a symbol system" (Gardner, 1999b, pp. 36-37).

Two more criteria from developmental psychology:

• "a distinct developmental history, along with a definable set of expert 'end-state' performances"

• "the existence of idiot savants, prodigies, and other exceptional people" (Gardner, 1999b, pp. 38-39).

The last two criteria for determining separate intelligences are drawn from traditional psychological research:

• "support from experimental psychological tasks"

• "support from psychometric findings" (Gardner, 1999b, p. 40).

Based on these eight criteria, Gardner proposes the existence of eight separate human intelligences and defines these intellectual capacities as follows.

• Linguistic intelligence: "Linguistic intelligence involves sensitivity to spoken and written language, the ability to learn languages, and the capacity to use language to accomplish certain goals" (Gardner, 1999b, p. 41).

• Logical-mathematical intelligence: "Logical-mathematical intelligence involves the capacity to analyze problems logically, carry out mathematical operations, and investigate issues scientifically" (Gardner, 1999b, p. 42).

• Musical intelligence: "Musical intelligence entails skill in the performance, composition, and appreciation of musical patterns" (Gardner, 1999b, p. 42).

• Bodily-kinesthetic intelligence: "Bodily-kinesthetic intelligence entails the potential of using one's whole body or parts of the body (like the hand or the mouth) to solve problems or fashion products" (Gardner, 1999b, p.42).

• Spatial intelligence: "Spatial intelligence features the potential to recognize and manipulate the patterns of wide space (those used, for instance, by navigators and pilots) as

well as the patterns of more confined areas (such as those of importance to sculptors, surgeons, chess players, graphic artists, or architects)" (Gardner, 1999b, p.42).

• Interpersonal intelligence: "Interpersonal intelligence denotes a person's capacity to understand the intentions, motivations, and desires of other people and, consequently, to work effectively with others" (Gardner, 1999b, p.43).

• Intrapersonal intelligence: "Intrapersonal intelligence involves the capacity to understand oneself, to have an effective working model of oneself – including one's own desires, fears, and capacities – and to use such information effectively in regulating one's own life" (Gardner, 1999b, p. 43).

• Naturalist intelligence: "expertise in the recognition and classification of the numerous species – the flora and fauna – of his or her environment" (Gardner, 1999b, p. 48).

According to Gardner's Theory of Multiple Intelligences, these intelligences are both biological and learned or developed. It should be noted that though everyone possesses all eight of these intelligences, individuals differ in terms of which of their intelligences are more developed than the others, which results into disparate learning styles and culture backgrounds.

Comparing with a traditional classroom where one teacher with around thirty students and a single one textbook and teaching all students in the same way may be necessary, a very interesting question arises when taking multiple intelligence theory seriously into account in a classroom: in which way or method can a teacher apply to fit comfortably with disparate learning styles and backgrounds that exist in any student body? Chaz introduced "Five Entry Points" from Garner's another book *The Unschooled Mind: How Children Think & How Schools Should Teach.* (Garner, 1991, pp.244~248)

Five Entry Points: The Nurturing of Individual Understanding

Garner believes that "any rich, nourishing topic -- any concept worth teaching – can be approached in at least five different ways that, roughly speaking, map onto the multiple intelligences." (Garner, 1991, p.245) The topic can be thought as a room with five different doors or entry points. When a teacher introduces new materials with these entry points, students can approach topics or concepts by exploring different entry points. They hence "have the chance to develop those multiple perspectives that are the best antidote to stereotypical thinking." (Garner, 1991, p.245)

The five entry points are Narrational Entry Point, Logical-quantitative Entry Point, Foundational Entry Point, Esthetic Approach and Experiential Approach.

• Narrational Entry Point: "one presents a story or narrative about concept in question." (Garner, 1991, p.245)

• Logical-quantitative Entry Point: "one approaches the concept by invoking numerical considerations or deductive reasoning processes." (Garner, 1991, p.245)

• Foundational Entry Point: "examines the philosophical and terminological facets of the concept. This tack proves appropriate for people who like to pose fundamental questions, of sort that one associates with young children and with philosophers rather than with more practical (or more "middle-aged") spirits. (Garner, 1991,p245)

• Esthetic Approach : "the emphasis falls on sensory or surface features that will appeal to –or at least capture the attention of –students who favor an artistic stance to experiences of living." (Garner,1991,p.246)

• Experiential Approach: "Some students—old as well as young—learn best with a hands-on approach, dealing directly with the materials that embody or convey the concept."(Garner, 1991,p.246)

In short, an effective or skilled teacher is a person who can open a number of several different windows on the same concept. He/ She functions as a "student-curriculum broker," "that can help convey the relevant contents, in as engaging and effective a way as possible, to students who exhibit a characteristic learning mode." (Garner, 1991, p.246)

Chaz's demonstration

Inspired by Garner's multiple intelligence theory, Chaz stated that, "everyone is born with all the intelligence, but in various degrees." Multiple intelligences should be undoubtedly taken into consideration in a language classroom when language learners come in to the class with different learning styles. Therefore, a capable language teacher should provide the students with options or choices, *i.e.* the teacher could help the students approach any target topic with different entry points as mentioned above. In the situation of English teaching and learning, Chaz gave an example of 5-level vocabulary teaching as the follows:

1. **Choose two words you like**: students are asked to choose two words they like from their vocabulary bank.

2. **Classify or sort out words**: students are asked to classify the words by their criteria.

3. **Work out the syllables**: Chaz showed that the syllables of words or the stresses of sentences can be

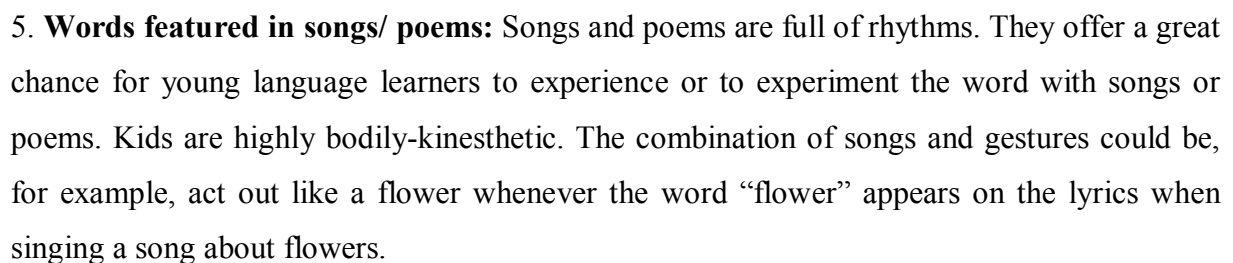easily demonstrated by stretching a thick rubber band tightly and loosely or by stepping back and forth.
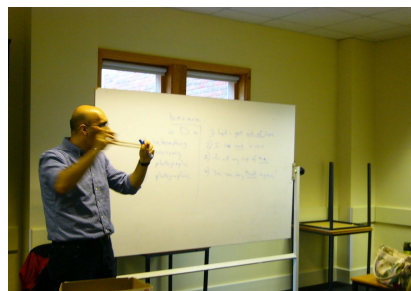
4. **Reproduce words from memory**: students are asked to produce any words that start with a certain letter, for instance, bee, bank, banana, book and etc. The teacher writes down those words on the board. Later on, students are asked to memorize those words on the board and then rewrite the words as many as possible on a piece of paper without seeing the board. Students may write the reproduced words in the same order as those on the board.

5. **Words featured in songs/ poems:** Songs and poems are full of rhythms. They offer a great chance for young language learners to experience or to experiment the word with songs or poems. Kids are highly bodily-kinesthetic. The combination of songs and gestures could be, for example, act out like a flower whenever the word "flower" appears on the lyrics when singing a song about flowers.

In these activities, different intelligences, such as linguistic, logical-mathematical, musical, spatial and bodily-kinesthetic, are implemented. Chaz presented a 1-5 scale of comfortable feeling. He asked us to list from the most to the least comfortable activities we felt. He then did an informal survey of our class and discovered that we had different lists－some found that "reproduce words from memory" is difficult while some considered that "words featured in songs and poems" is not easy. Chaz pointed out that if we teachers had different feelings toward the activities, so did our students.

My reflections

It is not a rare situation for me that, when I provide a very interesting lesson I think, some of my students really involve in the class while others still find the lesson difficult, make complaints and cause some disruptive behavior in class. I would usually feel furious about the disruption and preach a whole class. However, I feel frustrated at the same time. I can not help thinking, "do I really understand my students? Do I really provide the lessons that fit my students' needs, interests or, say, learning styles? When a student taps and hums during the class, for instance, is it a deliberate strategy to annoy me, or an unused musical intelligence spilling over?"

If we put on the glasses of multiple intelligences, we have to admit that teachers as well as students are stronger in certain intelligences and weaker in others.

Teachers would tend to design their classes based on their stronger intelligences and preferences. If they are not aware of that, they would often misunderstand or ignore those students who have different strong intelligences.

In this semester, I start to put on "MI glasses." I try to design my English lessons with the considerations of multiple intelligences and five entry points. I also regard my students from traditional view to MI. For example, some of my students do not hand in their homework on time because they struggle with repetitive handwriting. Instead of pushing them through the tasks they feel bored or tough, I offer them different options, such as writing with drawing. My students feel happy with what they can fulfill and give me rather positive feedback. It seems that they build certain confidence in English learning because of my understanding and flexibility. It is no doubt that if we encourage our students, we encourage ourselves and vice versa.

Conclusion

In my opinion, multiple intelligences theory provides a different way of viewing my work and a boost to what I do well already－ not an addition. In the practical English teaching environment in Taiwan, teachers do not have to prepare each lesson in eight different ways. Instead, we can offer a range of multiple intelligences－inspired activities over a period of time—maybe a spatial bias one week, and a verbal/linguistic one the next; maybe a choice of two activities, or an opportunity to be valued for every skill—not just handwriting.

MI is just a "notion-transformation." If we can help the students to discover how clever they are, they would become more confident. In that case, how smart we are! Nevertheless, it should be noted that "we should also be careful about putting individual children into categories. Children are constantly changing and evolving, and will often become what we think they are." (Paul, 2010, p.169)

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