

---

# Applications of Multiple Intelligences in Recreation Group Leadership Class

**Heewon Yang**

Associate Professor

Department of Health Education and Recreation

Southern Illinois University

Carbondale, IL

## Abstract

This paper focuses on the need for college professors to become more reflective about student learning styles and abilities. Adopting the theory of Multiple Intelligence (MI) proposed by Gardner provides an effective way to enhance student learning in class. The author, in his *Recreation Group Leadership* class, utilized three different difficulty levels of the human knot activity to explain the concept of flow. The activity consisted of actual problem solving, follow-up group discussion and an assignment, reports from each group, and evaluation. During the whole process, students were encouraged to utilize their own unique areas of intelligences to accomplish the given tasks. Results, in general, indicate that student groups who have been involved in this process performed better on a written test on the flow theory than other student groups who were given verbal instruction only.

KEYWORDS: Flow theory, multiple intelligence, recreation group leadership

---

Please address all correspondence to: Heewon Yang, Associate Professor in the Department of Health Education and Recreation at Southern Illinois University, Carbondale, IL 62901. Phone: (618) 453-1871; Email: [hyang@siu.edu](mailto:hyang@siu.edu).

## Introduction

Learning and teaching in school systems has traditionally been directed at verbal-linguistic and logical-mathematical intelligences (Ucak, Bag, & Usak, 2006). However, it is apparent that people think and learn in many different ways based on their needs, interests, and talents. Thus, offering relevant learning activities, which are initiated by students, and meeting their needs and interests should be regarded as an important way to enhance student learning. In reality, providing appropriate learning activities for students is not always an easy task. For instance, a primary challenge in teaching *Recreation Group Leadership* class is incorporating leisure and leadership theories into practical experiences or relevant learning activities that would significantly help students to develop their own sense of leadership.

In order to promote effective learning, college teachers need to become more reflective about students learning styles and abilities. Adopting the theory of Multiple Intelligence (MI) proposed by Howard Gardner (1983) is one of the effective ways for students to understand and apply the given information. It would also provide teachers with practical and insightful guidelines for planning effective learning activities for students.

### The Theory of Multiple Intelligence (MI)

Gardner (2006) stated that the great potential of a multiple intelligences (MI) approach to education grows from the concept of a profile of intelligences. According to him, most individuals learn in different ways, have different learning styles, and prefer to use their dominant intelligences for their learning. That is, each learner's intelligence profile consists of a combination of relative strengths and weaknesses among different intelligences, which include: (a) logical-mathematical intelligence; (b) linguistic intelligence; (c) bodily-kinesthetic intelligence; (d) musical intelligence; (e) spatial intelligence; (f) intrapersonal intelligence; (g) interpersonal intelligence; and (h) naturalistic intelligence.

More specifically, individuals with logical-mathematical intelligence possess the ability to handle chains of reasoning and often demonstrate a remarkably rapid process of problem solving. Linguistic intelligence manifests itself in individuals who think in words and language to express and understand complex meanings. Individuals with bodily-kinesthetic intelligence have the ability to use their body skillfully and handle objects adroitly. People with musical intelligence demonstrate the ability to sensitively appreciate pitch, melody, rhythm, and tone. Spatial intelligence can be identified in the person who can visualize an object from a different angle and think in three dimensions. While intrapersonal intelligence indicates the ability to access one's emotional life as a means to understand oneself and others, interpersonal intelligence represents the ability to understand other people and relationships. Lastly, individuals with naturalistic intelligence demonstrate the ability to recognize and classify the species of an environment (e.g., the flora and fauna) (Gardner, 2006).

Gardner (2006) argued that there might be numerous ways for college professors to meet the needs of students, thus increasing their motivation to learn. He further stated that developing learning activities to address these multiple intelligences might

significantly enhance student learning. The following section illustrates how MI theory, by adopting various stages of the Human Knot activity, can be used to explain the concept of Flow Theory (Csikszentmihalyi, 1990). In addition, classroom techniques that provide students with opportunities to actively demonstrate their intelligence areas through purposeful class activities and assignments are described.

### **Description of the Learning Activities**

Prior to the description of this learning activity, it will be necessary to briefly explain the concept of Flow Theory. According to Csikszentmihalyi (1990), flow refers to a zone of enjoyment and pleasure that exists between boredom and anxiety based on the participant's skill level and the challenge level of a task. For example, a participant with a low skill level in a challenging activity may feel anxious, while a highly skilled participant in a very easy task may experience boredom. Teaching the concepts of Flow Theory in recreation courses is essential because it provides valuable insights for recreation leaders to effectively plan and implement their recreation programs, and to manage participant behavior.

The concepts of Flow Theory may be demonstrated through activities that have potential of having different challenge levels. 'Human Knot' can be one of the activities that can be utilized to explain flow theory. Human Knot is a problem-solving activity that involves team-building efforts. It usually involves a group of about 8-10 members, and the goal of the group is to unravel participants from an entangled knot into an untangled circle. That is, the group gets into a circle facing the middle and everyone puts his or her hands in the center of the circle and grabs someone else's hand. Without letting go of hands, the group members have to unravel themselves.

As a first task, students are divided into groups of six and asked to solve the problem. Most of the groups usually solve the problem in a short period of time (e.g., less than one or two minutes). As a second task, students are assigned into groups of eight to complete the task. Usually, despite the increased challenge level, the groups are able to accomplish their tasks again. Of course, it takes more time for them to complete the task with the increased difficulty level (e.g., typically between two and five minutes). As a final task, students are divided into groups of ten or more (but usually no more than 14). The instructor may also blindfold some students to make the task more challenging. This task is not easily accomplished primarily due to the increased challenge level along with other variables associated with group dynamics.

These three consecutive activities were designed to provide students with opportunities to more effectively learn the concept of Flow Theory by utilizing their own unique areas of intelligences. That is, the class activities were intended to help students to identify and utilize many areas of multiple intelligences. For instance, students were encouraged to use or develop the following intelligences: (a) spatial intelligence (e.g., ability to develop or create future movements in a three-dimensional way), (b) linguistic intelligence (e.g., ability to articulate their solutions and communicate with others), (c) interpersonal intelligence (e.g., ability to initiate leadership, ability to be a good follower, or to be a team player), (d) intrapersonal intelligence (e.g., ability to regulate their feelings, moods, and emotion when faced

frustrating situations), (e) bodily-kinesthetic intelligence (e.g., ability to use their bodies effectively to unravel the knot), and (f) logical-mathematical intelligence (e.g., ability to develop strategies to solve the problem in a logical way).

It is interesting to observe each student's unique strength areas of multiple intelligences. For instance, one student with a physical disability had difficulty in using bodily-kinetic intelligence, but was able to demonstrate extraordinary spatial intelligence. When the student was allowed to stay out of the group and to direct using his logical and spatial intelligences, the group was able to complete their task in a fairly short time. Following the three different levels of activities, students are divided into groups of three to five so that they can engage more actively in a small group situation for group discussions and further class assignments. In order to teach how these activities demonstrate Flow Theory, questions or tasks such as the following may be utilized by the instructor: (a) what is your experience during the three consecutive activities in terms of level of challenge, level of skill, and emotions associated with each activity?; (b) summarize your experience in one paragraph; and (c) select a spokesperson and present your findings. This group discussion is also intended to help students to utilize their linguistic and/or logical-mathematic intelligence in the context of an interpersonal situation (intelligence). After brief discussion, a spokesperson from each group reports findings for his or her group utilizing their linguistic and interpersonal intelligences. As final assignments, each group is asked to develop a theory based on their experience with the activity, and to draw a pictorial model of their findings. These assignments are designed to assist students to utilize their artistic talents (drawing) as well as logical and linguistic intelligence. In addition, unexpected bonus points may be awarded as an incentive to a group who developed the most similar pictorial model to that of Flow Theory. After all activities are done, the concepts of flow and MI theory are reviewed and students are encouraged to identify their own strength areas of intelligence.

### **Outcome of the Learning Activities and Recommendations for Use**

Results of this activity indicate that adopting MI theory with the use of Human Knot can be productive in teaching Flow Theory. First, the provision of the learning activities based on the MI theory provided students with a fun, enjoyable, and dynamic learning environment, thereby producing intrinsic motivation from students. Second, it is believed that students were able to better understand Flow Theory. Specifically, when Human Knot and group discussion were provided to students, approximately 80 - 90% of students chose a correct answer on a question regarding Flow Theory. On the contrary, about 70 - 80% of the students chose a correct answer when only a verbal explanation of Flow Theory was provided. Third, as a professor, the author was able to better understand each individual student's strengths and weaknesses in terms of the multiple intelligences.

Finally, the application of the MI theory appeared to increase students' self-esteem and self-confidence by letting students identify their own strengths and unique ways of learning. Hopper and Hurry (2000) addressed other important effects of the MI theory on learning. They were: (a) increased awareness about the learning process; (b) in-

creased emphasis on individual learning process; and (c) stimulating an active learning process.

It may not be possible, or essential, for a college professor to take into account all of the learning styles of each individual student and create eight new lessons for each day. However, it may be desirable for professors to add new teaching strategies and learning activities to promote more effective student learning. Also, identifying, addressing, and utilizing students' methods of learning would be a very gratifying experience for faculty in higher education.

### References

- Csikszentmihalyi, M. (1990). *Flow: The psychology of optimal experience*. New York, NY: Harper Perennial.
- Gardner, H. (1983). *The frames of mind: The theory of multiple intelligence*. New York: Basic Books.
- Gardner, H. (2006). *Multiple intelligences: New horizons*. New York: Basic Books.
- Hopper, B., & Hurry, P. (2000, December). Learning the MI way: The effects on students' learning of using the theory of multiple intelligences. *Pastoral Care in Education, 18*(4), 26-32.
- Ucak, E., Bag, H., & Usak, M. (2006). Enhancing learning through multiple intelligences in elementary science education. *Journal of Baltic Science Education, 10*, 61-69.