Introduction

As I started my second year teaching Japanese at Falls Church High School, I noticed that my students were not responding to lessons that had been very effective the previous year. This was a particular noticeable with my students who were beginning their second year of Japanese. When I started to look at the class-composition, I noticed that only three of the nineteen students enrolled in the class were not Asian. The largest group was Korean (six students). The rest of the class was of either Chinese, Vietnamese, East Indian, Japanese, Thai, or Filipino descent. The previous year my class had also been heavily Asian, but had a larger Anglo population as well. I began to suspect that my problem was cultural rather than scholastic. It was this realization that led me on a four-month study to discover if learning styles were in any way connected with culture and if so, how could I address this most effectively in my classroom. Through my research I hoped to gain some insight into how I could help avoid a learning gap caused by cultural differences. I also hoped that by matching my presentations to the way my students learned, I could make my instruction time more engaging and effective.

Connection to Literature

In my research I explored two cognitive models, the theories of Field Dependence/ Field Independence, and Multiple Intelligences. The first theory gave me the cultural link I was searching for and the second provided me with a way to disseminate information to my students in a way that made sense to them.

The first model I looked at, the theory of Field Dependence and Field Independence (FD/I), was identified as a cognitive model by Hennan A. Witkin in 1962. Witkin's studies focused on differences in the way individuals sort out their environments. He later applied his research to the intellectual and perceptual realm which is the basis for most of the later research done in the 1970's and 1980's (Bean, 1990, p. 10).

In her thesis, "Cognitive Styles of Korean and Japanese Adults Learning English in the U.S.," Ruth Ellen Bean brings Witkin's work into the second language arena. She describes a field independent student as one who "can give structure to unstructured material and "can rely on themselves to select and organize items from the complex world around them" (Bean, 1990, p. 11). In the same study, Bean describes field dependent students as those who "perceive their environment globally or holistically...[and] have difficulty differentiating the important parts of their environment from the unimportant. They prefer to work with other people and depend on others for clues to help them structure and
organize ambiguous situations" (Bean, 1990, p. 11). This means that a field independent student can identify and manipulate the parts that comprise the whole, while the field dependent student has difficulty identifying the various parts and needs additional input to manipulate them. This is an extremely salient point to a second language learner, as most language curriculum requires a student to be able to manipulate words in a sentence in various patterns and combinations. If a student cannot find the patterns, they cannot manipulate the words as required, and frustration and lack of understanding are the result.

In her 1988 study, "The Effects on Cognitive Style and Second Language Learning Among Southeast Asian Refugees," Dana Conner Ritchie points out the connection between a student's culture and FD/I. She says, "Field dependence/field independence [are] related to such cultural factors as socialization practices, degree of social 'tightness,' ecological adaptation, and biological effects. Among these, socialization factors have been the most widely examined" (Ritchie, 1988, p. 52). "Ritchie quotes several studies that show "field independence...result[s] from less harsh socialization practices with encouragement of autonomous functioning and fewer ties to the group, while field dependence results from stronger ties to the group, an emphasis on conformity, and strict or harsh socialization practices" (Ritchie, 1988, p. 52). Bean strengthens this observation by stating," Countries or societies with strict child rearing practices, highly socialized agricultural and/or authoritarian environments in which the child is controlled and pressured to conform produce more field dependent individuals" (Bean, 1990, p. 13). In short, a stricter more group-controlled environment tends to produce individuals with field dependent characteristics, while a more liberal society that encourages individuality tends to produce more field independent individuals.

Asian cultures vary in many ways, but the majority of dominant Asian cultures place great importance on the good of the group and little emphasis on individuality. Great respect is given to authority figures and parents dominate their children. This style of socialization is similar to that described as fostering field dependency. In the United States, however, the socialization process is more lax, with an emphasis on developing individual autonomy. As a result, children raised in the U.S. tend to be more field independent. Since the majority of my students were raised in the United States by Asian parents, they should theoretically have both field dependent and independent tendencies. Although this theory helped me to understand why my methods were not effective with my students, I needed a model that would help me access the learning capabilities and develop field independent qualities in my students who showed field dependency.

Multiple Intelligences, the second cognitive model I looked at, filled this role. It is a cognitive model proposed by Howard Gardner in the early eighties that divides human potential into seven different categories or "intelligences." These are Linguistic Intelligence; Logical- Mathematical Intelligence; Spatial Intelligence; Bodily-Kinesthetic Intelligence; Musical Intelligence; Interpersonal Intelligence; and Intrapersonal Intelligence (see Appendix A for a detailed description of each intelligence). Gardner's theory revolves around four key
points: 1) Each person possesses all seven intelligences, 2) Most people can develop each intelligence to an adequate level of competency, 3) Intelligences usually work together in complex ways, and 4) There are many ways to be intelligent within each category (Armstrong, 1994, pp. 11-12).

The idea to use MI theory as a way to address field dependence/independence came when I read the section on other intelligence theories in Thomas Armstrong's book *Multiple Intelligences in the Classroom*. Armstrong states that "a person's learning style is *the intelligences put to work*. In other words, learning styles are the pragmatic manifestation of intelligences operating in natural learning contexts" (Armstrong, 1994, p. 13). He goes on to describe MI as being a "cognitive model that seeks to describe how individuals use their intelligence to solve problems and fashion products… [This] approach is particularly geared to how the human mind operates on the contents of the world" (Armstrong, 1994, p. 14). Since both theories deal with the way a student interprets the world and manipulates his environment, I thought it might be effective to use the student's natural intelligences as a bridge to help them move from field dependence to independence. The advantage of this is that though a student may be field dependent, he can still use his other intelligences to help interpret the information being presented to him.

**Goals and Activities**

My goal was to increase student understanding, engagement, and performance by presenting information in a way more in line with their individual learning styles. I used observations, surveys, and grades to measure my students' and my progress. Still, the majority of this project was comprised of the various manipulations I made to the human element of my classroom.

Initially, I just made observations about my classes. I started out by watching for FD/I behavior in my students. I noticed that my Korean students preferred to work with each other in group settings. They would move across the room to be together during free periods or class work periods, and had to be reminded twice during the year that copying papers was cheating, not "sharing." They were highly motivated by "group think," and often reacted as a single body. My other students, primarily the Japanese and Vietnamese students, also showed similar tendencies and often joined the Korean group. Everyone else showed varying levels of field dependence and independence.

As I got a better idea of which students were field dependent (I suspected five students were heavily field dependent), I started making small changes. I tried pairing weaker students with more field dependent students of their own culture to utilize their interpersonal skills (MI), as well as to give them someone to ask questions to (FD). This proved to be extremely effective. One student went from a "D+" to a "C+" between 2nd and 3rd quarter when I performed the pairing experiment. I also noticed an increase in classroom engagement, as the field independent students encouraged their partners to participate.

I also tried grouping to see if my pairing experiment would work on a larger scale. I broke the class into four groups. The first was all Korean. The second was made up of 3 Vietnamese, 1 Chinese, and 1 Thai student. The third
group had 1 Korean, 1 Chinese, 2 East Indian, and 1 Filipino student. The last group had 2 Anglo, 1 Black, 1 East Indian, and 1 Japanese student. I designed the groups so there would be at least one ethnic majority in each group and a blend of FD and FI students. I wanted to pay particular attention to the all Korean group and the group with only one Korean student.

The group experiment both confirmed my expectations and surprised me by how wrong some of my assumptions were. The groups' primary purpose was to create a magazine describing a geographic region in Japan. Each person in the group had a specific topic he was to cover, but the project's grade would reflect both group and individual effort. The Korean group performed as I expected. They worked well together, shared information, kept each other on track and helped out as needed. In the computer lab, they followed my directions to speak only within your group with no problem. The other groups found this difficult, if not impossible.

Even as the Korean group filled my expectations, other groups showed equally interesting, if unexpected, behaviors. The students who were of the same ethnic group often joined together and left out the rest of their groups. They also had a hard time working within their groups. During in-class work periods, students who had been separated from their friends of the same ethnic group often chose to work with those friends rather than with their groups. Once with their friends, the behavior was similar to that of the Korean group. The exception to this was the 4th group. They all worked independently unless forced by me to work as a whole.

The real surprise came when the final projects were due. The work ranged from excellent to marginal. Several students (3-4) did not turn anything in, though the project was worth 20% of their 4th quarter grade. Most of the work I did receive actually took the form I had asked for, something that may or may not happen at a high school level. The Korean group's product was so far above my expectations that they all got 130%. An interesting side note about this group was that when a certain member of their group quit coming to school or came and slept through class, they did the project without him, reassigning his section out evenly among themselves. Previously, they had simply done the work for him and turned it in under his name.

Another assignment I had the students do in their groups was a vocabulary exercise that had them go to five different stations. Each station used a different intelligence. After they did each activity, they had to comment on it. I thought there might be some cultural connection to which intelligence appealed to which culture (i.e., the Korean students might all like the kinesthetic activity). At the first station, the students had to choose five words from a list of thirty-five and draw a picture of the word's meaning, while somehow including the Japanese word in the picture. This required them to use their spatial intelligence. At the second station, they had to play "taboo" with the English definitions of five or ten Japanese words. They had to describe what the word meant without saying the exact definition while the rest of the group guessed what the word was in Japanese. This accessed their linguistic intelligence. At the third station, they had to make up a song using five Japanese words and their definitions. This
used their musical intelligence. The fourth station required that they choose five or ten words. Each student had to act a word out and the rest of the group guessed what the Japanese word was. This station used their bodily-kinesthetic intelligence. The last station was a table with bright green lunch trays filled with red sand on it. The students wrote the remaining words on the list in the sand with their fingers in Japanese while they thought of each word's definition. This used both their bodily-kinesthetic and spatial intelligences.

All the students were well engaged for the duration of the activity. It was evident which groups liked each activity, because they stayed busy for the entire time and then did not want to rotate to the next station. This gave me the impression there would be a lot of group and ethnic consensus about which stations were the "best." This assumption was completely wrong. There was a very small amount of consensus among ethnic groups and almost none among group members.

I tried several other experiments using the various multiple intelligences to bridge the gaps caused by field dependency during the third quarter. Using their spatial intelligence included using more pictures as I explained grammar concepts and having them play pictionary and charades. I also used manipulatives when I taught more complex verb conjugations or sentence patterns which allowed the students to become a part of the sentence. This helped the FD students understand how the parts of the sentence functioned together or how they were manipulated by using their bodily-kinesthetic intelligence. I also had students come to the front and act out the sentence by performing the action described by the words. To access the musical intelligence, I taught the students little songs to remember certain verb conjugation patterns. I had them use their interpersonal intelligence by teaching certain grammar points to each other. I also had them talk to each other by giving them a situation such as, "You just bumped into your friend at a concert," or "You are calling someone on the phone to ask them out on a date."

Outcomes

Since I did not have a lot of time to design a cohesive plan of attack, most of my experiments were used randomly throughout the third and fourth quarters of the 1998-1999 school year. I tried a variety of approaches, taking both MI and FI/D into account. The most successful experiments were those that focused specifically on field dependent students.

From my observations I learned that ethnicity has a powerful effect on learning if field dependent students are paired with field independent students of the same culture. Also, groups can be more effective if divided along ethnic lines and contain both field dependent and independent students. I noticed that students say engaged longer when a "novel" (i.e., not lecture or worksheet) type of explanation that focuses on one of the more neglected intelligences is used to explain grammar. I also saw that students become more involved when they are expected to perform in realistic situations.

The students’ surveys showed that there is little or no connection between multiple intelligences and culture. They also showed that students prefer hands
on experiences to discussions and written assignments. Student responses said they enjoy using a variety of intelligences to learn and communicate.

Grades were the most encouraging indication of success. I only looked at the difference between 2nd and 3rd quarter, as that was the period I was most focused on. Of my nineteen students, nine students raised at least a half grade. Six students stayed the same, but all but one of these had an "A." Four students fell at least half a grade. Contrary to my expectations, three of the four students whose grades dropped were Korean. Of the five students I suspected of being FD, two raised one whole grade and one raised more than one grade. As for the other two, one ran away for two weeks during the quarter and never recovered scholastically and the other increased her classroom performance tremendously, but turned in little work and did poorly on the tests. The first dropped more than one grade, and the other dropped one grade.

Recommendations

Through this research, I have realized many things that will influence my teaching. I realized that I could have had a much greater effect on my students had I a longer time period to work with. This kind of research needs to be conducted for an entire school year, rather than just for one or two quarters. It is imperative that the teacher be aware of which students in her class shows signs of field dependency and address those issues through pairing, group work, and infusion of multiple intelligences in the classroom. Culture is important, but mainly from the standpoint that it is easier for students of the same culture to explain things to each other in a way that makes sense to them. Finally, the majority of students will benefit from a curriculum designed to access all seven multiple intelligences, regardless of their field dependency level or cultural background.

References


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