ABSTRACT

Terri Coustan's research efforts focus on how to use MI theory in her ESOL classroom in ways that enhance student engagement and learning. Most of her students are Hmong people from the hill country of Laos. Having worked with the same group, more or less, for the previous three years, Terri attributes her AMI findings to her implementation of an MI-informed approach, the one significant change in her classroom over the last year and a half.

Terri's approach is twofold. Through a synthesis of her informal observations of her students, she develops an understanding of their MI-related strengths and learning strategies. She then designs classroom activities that are geared to those strengths and strategies she has observed. She gives students a set of activity options for them to engage in the content of the lesson.

Terri creates alternative "entry points" into the material that give students ways of learning and expressing their understanding beyond verbal means. She finds that the MI-informed choice activities aid students' academic progress, and she offers several cases to that effect in her report. Although Terri finds that her students had difficulty understanding MI theory and were not able to identify their more specific learning strategies, they did improve their ability to reflect on their own learning.

Interestingly, Terry found that giving students choices and setting a trusting context resulted in students taking greater control in the classroom and expanding their cultural norms for classroom behavior. Terri credits her AMI inspired activities for fostering student participaton and assertiveness, a stark contrast to three years of relative student passivity.

RESEARCH CONTEXT

My school is located in an area known as South Providence, Rhode Island, an urban inner city area rich with many immigrant groups, but considered economically poor. The International Institute where I work provides the immigrant population of the greater Rhode Island area educational and social services, legal and immigration assistance. The three-storey building has recently been renovated and provides a comfortable and attractive setting for staff and clients.

I teach in a family literacy program. Most of the students are Hmong from the hill country of Laos. The Hmong have held very tightly to their culture. The survival of their culture in the face of Chinese domination could be attributed to their adherence to their culture and values. Their children still date only Hmong and attend cultural events in traditional Hmong clothes. Many of my students believe in the power of the shaman to keep the Hmong people healthy and happy. Most of my Hmong students came to this country about 10 years ago and are still in need of English language instruction. Most are on welfare.

To be in the class, every student has to meet at least one of four criteria: i) have had less than five years of formal language instruction; ii) be non-literate in their native language; iii) have experience in only non-Roman scripts; and/or iv) have been unable to progress in other adult education programs. The adults presented differing language abilities. Some were struggling to communicate orally, while others had difficulty reading and writing.

The class in which I focused my research project included seventeen Hmong mothers and fathers and three other adults. With the exception of a few infants and toddlers, the twelve preschool aged Hmong children spent most of their time in a second classroom with a teacher and an aide. We joined the children for snack, computer use, and occasionally other activities. The non-Hmong students included a grandmother from Ghana, and a mother and her twenty-one-year-old daughter from the Dominican Republic.

If you walked into my classroom, you would see many objects reflecting the cultures of my students. On our walls hung blown-up photographs of our Hmong students taken when they were in Laos,

1. What impact do ESOL activities informed by the MI theory have on student engagement and learning strategies?

2. How do prior cultural learning and experiences shape students' reaction to and participation in ESOL activities informed by the MI theory

Chinese baskets, African drums, and Hmong dolls. Maps, books, toys, and a blackboard rounded out the learning space.

Our classroom extended well beyond the four walls of the International Institute. Most of my students were farmers in Laos, and as part of our Family Literacy Program, we as a class, gardened in three plots in the area. Older siblings came and helped with the gardening, and we encouraged them to come and join their parents in the gardens during school vacations and on school holidays.

I had been the teacher for these students for three years prior to the AMI project. We had blown out candles on birthdays, worked a vegetable garden, and attended funerals together. We were a community. This year a young Hmong college student, Tia Yang, aided my research by translating, co-teaching, and interpreting Hmong traditions.

RESEARCH QUESTION

I began my research motivated by the need to learn more about my students and to develop a way for them to learn more about themselves. A Teacher's Journal entry from a month before I began the project demonstrated my frustrations with my limited knowledge of my class. I wrote:

> *I don't know a lot about my students. I can only observe their reading and writing. It is difficult to fit the curriculum to student needs. It is difficult to assess low level learners. They have limited ability, no reading ability, limited oral vocab. They had low expectations, limited appreciation of their abilities. They are aware of the gap between themselves and their children. They are aware of what they do not know. They hold tightly to their culture and express disappointment with its shortcomings.*

With most of my former students returning, and informed about MI theory, I began to prepare myself for eighteen months of MI research. I hoped that my students would become aware of their own intelligences and be able to use them to facilitate their literacy aquisition. I reasoned that having the students show or demonstrate their preferences for learning activities in school would help me observe their intelligences as revealed through their choices. I hoped that, in turn, I could communicate the developing MI profiles to my students if they were not able to recognize them for themselves. Therefore, I initially posed the following research question:

What effect does metacognitive awareness of multiple intelligences have on the perceptions of effective ESOL teaching and learning by students with limited native language literacy?

I reasoned that if these students became aware of multiple intelligences and their own areas of strength, they might embrace non traditional classroom activities that capitalize on their strengths. I believed that MI- based instruction would be more effective than traditional activities for learning English. In addition, I thought that the parents' views of the learning process have and should have an impact on their children's education. If their perception of an effective ESOL classroom included non-traditional teaching, the parents might advocate this approach for their children.

Since my initial findings based on student surveys, teacher observation, and peer review seemed to support the idea that my students were, in fact, already open-minded about non-traditional ways to learn English, I revised my original research question to probe into other areas. I posed these questions:

1. What impact do ESOL activities informed by the MI theory have on student engagement and learning strategies?

2. How do prior cultural learning and experiences shape students' reaction to and participation in ESOL activities informed by the MI theory?

I had planned in this research project to look at student learning strategies and student engagement as two different factors. However, I found it impractical to observe student engagement indicators such as: attendance, time on task, perseverance, body language, taking a leadership role, and helping other students to complete activities. I had difficulty documenting a wide enough sampling of students. I also found that student learning strategies were tied to student engagement in that, for the most part, students chose strategies which motivated them to become very involved. Since student learning strategies and engagement were so entwined, I viewed them as a unit.

DEFINING TERMS

"ESOL activities informed by the MI theory"
When I talk about " ESOL activities informed by the MI theory" in this report, I am describing activities in which students had the opportunity to draw on their intelligences as well as the opportunity to expand their knowledge and understanding of a topic. For example, a unit on Abraham Lincoln included daily short stories written on the blackboard, sequencing pictures, building a log cabin, group writing and making a video about Lincoln's assassination, examining coins, and studying the structure of the Lincoln Monument. These project- based activities were used in the first four months of the project. Another MI -influenced project I implemented was gardening. Since gardening was an important part of the lives of the students, it made sense to bring it into the classroom and make it the subject of a unit. The gardening unit included the following activities:

- Writing about your garden in Laos
- Constructing a greenhouse
- Sequencing photos of gardening
- Constructing a time line of life of the Laotian Farmer
- Drawing an event in the life of the Laotian farmer
- Talking and looking at photos of gardens in Mexico
- Playing a casino style board game using a large wheel

The ESOL activities informed by the MI theory also involved students choosing which activities they completed. For the theme,"Coming to America", students chose among: writing about coming to America, drawing a picture of the same, building a boat showing the same, sequencing stories story sentences, and unscrambling vocabulary words. Students were also offered activity choices

throughout the week. These choice activities formed the backbone of my MI research. Student selected themes for the choice activities included:

- Men Hitting Women
- Frightened
- Going to the Casino
- Chinese Medicine
- Too Many Children
- A Parking Ticket

"Learning Strategies"
When I talk about " learning strategies" for this population of low level learners, most of whom were illiterate in their native language, I am referring to the materials, actions, and social settings that the students chose to use to help them learn. For example, if objects such as books, the blackboard, a tape recorder were chosen by students to facilitate their learning, I considered them learning strategies. I also considered the action the students used as part of the definition of learning strategies. By this I am referring to reading, writing, drawing, entry into the computer, counting, and sounding out words, to list a few. Finally, I looked at the social choices the students made around their learning. These social choices included working alone and working in groups.

"Non-Traditional and Traditional Activities and Materials"
When I refer to traditional activities and materials in this report, I am talking about books, blackboards, direct teaching, copying, and workbook activities. I use the term "non-traditional activities and materials" to include constructing with play dough, using musical melodies, bodily movement, board games, along with drama in the learning process. While both traditional and non-traditional activities had a relationship to MI by providing opportunities for students to use their strengths in the learning setting, non-traditional activities offered a greater variety of activities and provided for a greater variety of strengths.

IMPLEMENTING MI

When I started to apply MI, my teaching practice changed. I offered many more activities and more choices to my students. I also routinely asked my students to evaluate what they were doing and if the activities were helping them to learn.   I expanded the scope of class projects using multiple intelligences theory as a framework for creating and adding new activities. By offering a weekly "Choose 3" lesson, an instructional approach created by Martha Jean, one of my AMI teacher colleagues, I offered more choices to my students.

I also changed the format of my lesson plans during the research project. To fully utilize the Choose 3 activity, the students created their own stories on Monday and reviewed them by entering them into the computer on Tuesday. Choose 3 further developed the theme through MI influenced activities on Wednesday, followed by a dictation and evaluation of the week on Thursday. On the Choose 3 day, I would explain and demonstrate the activities which focused on the story of the week and then invited the students to choose three activities. For example, the choices might have included sequencing a story, finding or drawing a picture, and building an object out of Legos. The

activities were varied and were aimed at providing students with entry- point options for developing their understanding of the week's vocabulary or topics. These activities also provided opportunities to record their multiple intelligences.

Another change in my teaching practice was the emphasis on student metacognition, or thinking about their learning. I asked my students to reflect and assess their learning because I saw reflection as an integral part of MI theory. Becoming aware of their choices helped students to become aware of their own strengths, which permitted them to process learning in ways that were unique to each of them. At the same time, their choices demonstrated their strengths to me. My lesson plans over the past two years show that I never asked students to reflect on an activity and tell me why they liked it or what they had learned. By contrast, as part of the AMI research, I asked students to review and reflect on their learning in many ways. Each week, using a photo journal to facilitate the dialogue, I asked the students to review one of their choice activities. During the Choose 3 day, I photographed my students engaged in an activity, and then I mounted the photo on a page along with these questions:

- What are you doing?
- Do you want to do it again?
- Is it a good idea for school?

In addition, at the end of every week, I listed all the activities and asked students to circle in red the activities they didn't like and in green the activities that they liked. When clarification was needed, I asked students, through a Hmong translator, to explain why they didn't like an activity.

EVOLUTION OF MY WORK AND THINKING

The study of the brain and its relationship to learning in children was an early interest for me. When my neighbor was diagnosed as learning disabled in the 60's, I became interested in the work of William M. Cruickshank and Marianne Frostig, pioneers in education for brain damaged children. In their book, The Teacher of Brain-Injured Children, a collaboration between educators and specialists in medicine and psychology, Cruickshank and Frostig argued that brain damaged children could learn if teachers would modify instruction to fit the needs of each child and provide instruction which meshed with their unique point of brain entry.   These ideas shared many common threads with the MI theory and the notion that all individuals process and compute information which accommodates their personal brain-based "computers."

My training in early childhood education provided me with another link to MI, particularly my interest in John Dewey's theory of learning by doing, a concept embraced by MI Theory. In his article "Multiple Approaches to Understanding," Gardner wrote about his theory that students have unique computer-like brains to process information in ways that fit individual ways of learning or knowing. He included "hands on" as one way of learning or knowing. Like Dewey, Gardner saw active participation as an efficient and useful element in learning.

In my project, I tried to identify the intelligences of my students and tried to have the students become aware of their own intelligences. Gardner's ideas regarding assessing intelligences also

influenced the design of my project and my teaching. In his article, "Choice Points as Multiple Intelligences Enter the School," Gardner wrote that intelligences may be assessed through the lens of student choice. He explained,

> *...One approach is to attempt to assess intelligences in context by creating environments in which one can observe particular or groups of intelligences at work. Another is to feature student projects or exhibitions, where students have options of selecting the ways in which they can exhibit mastery of curricular materials.*

Gardner contends that the theory of multiple intelligences offers a variety of ways "into" a particular subject matter. He talks about an educational framework that recognizes and provides for differences among learners by offering a variety of ways to learn or "entry points" into a subject or theme -- aesthetic, narrative, logical/quantitative, hands on, and social. Through the Choose 3 activities, I tried to offer activities which reflected a variety of entry points.

The work of Renate Nummela Caine and Geoffrey Caine and Elsa Auerbach also contributed to the development of my teaching strategies. Caine and Caine's work support and complement multiple intelligence theory, particularly the importance of intrapersonal intelligence. Gardner contends that if he had to weigh all the intelligences, he would have to give the greatest weight to the intrapersonal intelligence. Caine and Caine believe that metacognition, or understanding the way one thinks and feels, is vital to the learning process. In Making Connections, they explain that "thinking about the way we think and feel and act . . . helps us to learn in much more depth because we begin to recognize and capitalize on personal strengths while improving or allowing for weaknesses. We are also better able to appreciate what is really important to us, and so access our own intrinsic motivation."

In addition, Caine and Caine address the need to connect old learning to new learning by making information come to life for the students. I used this theory in my teaching practice by having students create authentic stories connecting and talking about their life experiences.

The participatory model, suggested by Elsa Auerbach, further informed my teaching methods, augmenting the theories of Caine and Caine. In her book, Making Meaning Making Change, Auerbach explains that the essence of the participatory approach "is a simple one. People learn best when learning starts with what they already know, builds on their strengths, engages them in the learning process, and enables them to accomplish something they want to accomplish." In my classroom, the students provided me with direction. Their interests, concerns, and worries generated the themes and topics. They created authentic stories based on their life experiences.

In addition, Elsa Auerbach helped me to appreciate and observe the impact of cultural learning and experiences on the lives of my students. Her comments in my teacher journal were instrumental in responding to my research question about the impact of cultural learning and experience and MI activities. Auerbach, Caine and Caine, and Gardner all address the power of a community of learners and its effect on learning: -- creating an atmosphere for learning. They all state that students ideally should become the teachers. That goal became an essential part of my teaching practice.

Data Collection

Fifteen adults participated in my research project, and I used a combination of data collection tools.

- Surveys
  I used individual surveys to determine student learning strategies. The pre and post learning strategy survey offered students a three-point scale: "helped a lot, helped a little, not at all," to the effectiveness of classroom strategies: such as reading, writing, drawing, building, using equipment (blackboards, computers, books); and learning modes (working alone, with a partner, or in a group). Individual responses were combined into a class chart for class discussion.

- Computer and Book Logs
  Students kept copies of their own computer work as well as a list of books that they borrowed from class.

- Teacher Journal
  I recorded how students engaged in MI activities in my Teacher's Journal. I included student comments and other information regarding indicators of student engagement in MI activities.

- Dialogue/Photo Journals
  Through weekly dialogue journals, I posed questions to the students about their engagement with the activities using as the basis for my questions the following indicators of engagement: attendance, time on task, perseverance, signs of struggling, body language, taking a leadership role, and helping other students to complete activities.

  Students also responded weekly to questions about Choose 3 activities in which they had chosen to participate. A photo of the student engaged in an activity accompanied the questions, which included: What did you learn in this activity? and Which activity did you like? I also had students note new vocabulary words. The students were given the journals with my questions on Thursday of each week and returned them with responses and dialogue on the following Monday.

- Photograph Album
  I photographed students engaged in activities to record body language as an indicator of levels of student engagement with MI activities. These photographs were kept in a class album.

- Attendance Records
  I maintained attendance records as a way to assess student engagement.

- Lesson Plans
  I used the lesson plans from the preceding two years to compare my teaching practices' pre-MI and with MI.

In addition to the data collection methods noted above, I collected information about Hmong cultural beliefs and customs through a classroom aide and translator, Tia Yang. Feedback and support for the project came from two sources. A member of the International Institute staff visited my class

throughout the year and provided me with feedback about my project. I also communicated by telephone and e-mail with Diane Paxton, my AMI project partner. We shared concerns, solved problems, coordinated surveys, discussed class activities, and exchanged logs.

FINDINGS

Finding 1: Student choices revealed their learning strategies and made it possible for limited literacy students to participate more actively.

My students came to the project already accepting of traditional activities. As time went by, they added both traditional and non-traditional activities to their repertoire of learning strategies. Through their responses to survey questions and their participation in class, it was clear that the students valued both kinds of learning strategies. However, they also demonstrated that they valued the non-traditional ones which were linked to the MI-based activities.

Each week I provided a set of activities relating to a topic or theme for the week from which my students were asked to complete any three. I designed the activities using MI theory as a framework. I observed changes in the activities my students chose. At first, the students chose less complex activities. In the beginning of my research project, I included the activity of writing the weekly vocabulary words in glitter or in colored sand as part of the weekly Choose 3 activity. At first, this activity was very popular. Everyone chose to do it. However, within four weeks of the Choose 3 activity, none of the students were selecting that activity. Instead, they were choosing more demanding activities, such as putting sentences in sequence, unscrambling words, and building objects out of Legos.

Second, I could see a pattern emerge for each student. Each student selected with eagerness the same kind of activity over and over again. For example, after he became comfortable with Choose 3, Choua selected activities in which he could use his hands to make objects such as a wooden truck. Lor chose activities that involved logical math processes. These examples were consistent with learning activities they chose other days as well such as counting the number of students who were present. Although these students did not work exclusively in any one domain, they seemed to be drawn at first to a particular domain which reflected specific intelligences.

Findings

- Student choices revealed their learning strategies and made it possible for limited literacy students to participate more actively.

- Choice-based ESOL activities seemed to foster student assertiveness in school as well as outside of school.

- Students' academic progress was aided by MI-informed activities.

- Students increased their ability to reflect on their learning with repeated practice.

- Students had difficulty understanding MI Theory.

- Choice-based activities and a trusting learning environment led to students taking greater control in class.

- Through choice-based activities in a trusting learning environment, students expanded cultural norms.

The choice activities provided an opportunity for students who could not communicate well orally or in writing to participate in the classroom learning. Mee was a good example of this kind of student. Mee knew few English words and could only write her name. She could not write the alphabet or numbers. But Mee was able to participate in the MI-based activities. She chose to find and cut out pictures from the National Geographic which demonstrated her understanding of the vocabulary for the week. For example, as I noted in my journal, Mee was looking for a picture of the word, "problem". She found a picture of a rider falling off of his horse. She cut out the picture and placed in the middle of her paper, wrote the word "problem" and with lifted eyes and an open mouth, said, "Oh, my G-d, problem"! Through her spatial center placement of the picture, choice of that particular photo in combination with her language, she showed her understanding and shared her excitement with the class. These activities made it possible for me to observe students with limited English speaking, reading, and writing skills. Through giving them choices, I gave these students the opportunity to express themselves in a way I had not done before.

In the beginning of the project, I conducted a pencil and paper survey with the students about learning strategies they considered helpful for learning English. I asked each student to indicate whether an item was helpful to his/her learning: "a little, a lot, or not at all." The items on the survey included traditional objects found in a classroom (blackboard, tape recorder, computer, books, markers), and non-traditional objects which are not usually part of an adult classroom (play dough, Legos, clay), objects found at home (a TV), traditional actions that might be associated with learning, (reading, writing, listening to the teacher, copying), and groupings that might aid learning (learning alone, with a friend, or in a group). When I compared the results of the two surveys, I noticed changes in the students responses to the objects and actions that they said helped them remember English. The following results were based on the total number of students present at the time of each survey. Not all students answered every question. I included a chart with all the data from the two surveys. I will only report a few of the more significant changes.

In the first survey, at the beginning of the project, 1% of the students reported that the blackboard, tape recorder and books helped a lot. In the final survey, 53% said that the blackboard helped a lot and 46% said that the tape recorder and books helped a lot. These results seem to indicate an increased interest in the traditional teaching tools, or an increased awareness of their usefulness to learning English.

Building with playdoh, a non-traditional teaching tool, was one item that stood out in the survey results. In the first survey, 44% said that play dough did not help them learn English, 44% said it did a little. In the final survey, 1% said not at all, but 93% said that playdoh helped a little. By the end of the project, more students felt that the blackboard, tape recorder and books, and even playdoh facilitated their learning. The students showed increased interest in traditional and non-traditional educational tools.

Students also demonstrated through the surveys that their preferences related to more traditional methods of learning English changed. In the first survey, 22% said listening helped a lot. This figure increased to 66% in the final survey. Similarly, the appreciation for reading as a way to learn English rose from 1% in the first survey to 27% in the final survey. The difference was even greater for writing. In the first survey, 1% said that writing helped a lot whereas in the final survey, 46% said so.

Perhaps the greatest change in attitude toward non-traditional learning strategies related to singing. By the end of the project, a third of the class said that singing helped them to remember English. Only 1% had responded this way on the first survey. Previously, the class told me over and over that singing was not in the tradition of the Hmong and that it was used only for ceremonies. Over time, I tried to emphasize the sound of the words in a sing-song way, and many of my students seemed to respond to this strategy. Perhaps that affected their attitude toward singing.   Maybe my students' successful experiences with MI-based learning activities encouraged them to try new things -- even singing or chanting words, activities they had never seen as learning tools before.

In response to questions about working alone or in a group, by the end of the research project, one third of the class preferred to work alone to learn English, compared to only one student expressing that preference at the beginning of the project. I will talk more about group vs. individual learning in the section "Expanding cultural norms."

In conclusion, the students reaffirmed through the survey results that they valued nontraditional approaches along with the traditional ones. Experiencing diverse materials and learning strategies through the activities given as choices to them, the students seemed to have widened their learning strategies and began to employ a wider and more complex variety of strategies even including playdoh and singing.

It is interesting to note that as my students became more engaged through their own choices in non traditional activities, this led them to express paradoxical statements about MI-based activities. In the weekly evaluations, and at the end-of-the-year review, the students stated that although they liked the Choose 3 activities, they would like them to be more closely tied to literacy objectives. Over time, the students came to value MI-based activities, but they wanted to adapt these activities for their own literacy goals.

Survey Results of Student Preferences	PRE TEST Not at all	POST TEST Not at all	PRE TEST A Little	POST TEST A Little	PRE TEST A Lot	POST TEST A Lot
1. Work with a friend	0	27%	67%	60%	1%	13%
2. Work with a group	0	2%	1%	73%	67%	1%
3. Work alone	0	33%	56%	33%	1%	33%
4. Talking	1%	1%	66%	60%	33%	27%
5. Listening	1%	0	44%	33%	22%	66%
6. Writing	0	1%	56%	46%	22%	46%
7. Reading	0	1%	56%	53%	1%	27%
8. Singing	56%	2%	0	40%	1%	33%
9. Playdoh	44%	1%	44%	93%	1%	0
10. Legos	1%	2%	56%	73%	0	1%
11. Black-board	1%	0	67%	46%	1%	53%
12. Tape recorder	1%	1%	56%	53%	1%	46%
13. Books	1%	1%	56%	46%	1%	46%
14. Markers	0	1%	78%	60%	22%	2%
15. Computer	0	1%	56%	66%	22%	13%
16. Television	1%	1%	56%	66%	33%	1%

Finding 2: Choice-based ESOL activities seemed to foster student assertiveness in school as well as outside of school.

In school
Previously, I noted that the students' engagement and preferences about their learning strategies changed over the course of this research project. When I reviewed my Teacher's Log, I became aware that my students were also expressing their preferences *independent* of the choices I offered. I counted the number of times that my students verbally expressed a preference independent of my question. In the beginning of my Log, in one month, four students out of eighteen expressed a preference. Each of the four expressed a preference only once in that month. Midway thorough the project, I recorded that seven students had expressed preferences. Two students expressed three preferences in one month and the other four expressed two preferences in the month. Although not all the students expressed their preferences (there was variation among the students as to who spoke and the frequency of these exchanges), by the end of the project, more of the students expressed their preferences and more often as compared to the beginning of the project.

Additionally, in the beginning of the project, students only communicated to me about what they liked. By the middle of the project, students were communicating what they did not like. I was able to document these findings through student journals, student surveys, class comments, and observations. Students were asserting themselves. An African student, Jennifer, surprised me midway through the project when in response to my suggestion that we finish a matching activity the following day, she answered with great determination in her voice, "No, teacher. Today." I noted in my journal that Yer, Lor, and Choua agreed with her. They stayed after school and completed the activity.

On another occasion, I suggested to the class that we ask another class to come and help us clean up our community garden. To this suggestion, See answered that she didn't want any other student helping to clean up the garden because they would want a garden space. She said that she would bring her own family to clean up the garden.

At Thanksgiving, I gave the class a choice between cooking cranberries or sweet potatoes for our Thanksgiving Dinner. Yer did not make a choice between the two options I had offered, but stated a different and independent opinion. She said, "Teacher we cook, but we don't eat. Don't like the foods." The year before, Yer and many of the students in this class had cooked cranberries and sweet potatoes. Apparently, they were not a big hit.

Ger, a student from Laos, provided an example of student assertiveness in school. Ger hardly ever spoke in class. When I would ask him a question, his wife would speak for him. His wife told me that she spoke for him even at the doctor's. Near the end of the research project, Ger wrote the following in his journal in response to my question to him, "What do you like best in school?"

> *I like reading and write story in school because this word for me remember. I remember the new words very hot [hard] to talked for me. Sometime me people talked I don't understand. Sometime I understand, I cam [can't] talked.*

Ger was revealing something very personal about himself. It was one thing to share with your teacher your strengths, but another to write honestly about areas in which you are struggling.

Students not only expressed opinions as to what they liked and did not like, they also expressed ambivalent feelings about the choices that were given to them. In a few situations, they suggested adapting their choices. Lor said that she wanted to work with play dough, **but** wanted to do so in a way that helped her to learn English. She said,“ play dough and new words.” Others in the class agreed. On another occasion, Pia said that she didn't like the class trip with adults and children to the Children's Museum, **but** she added that she might go another day when there were fewer people there. By the end of the project, students were expressing a range of opinions about activities that they liked, didn't like and somewhere in between. Students' assertiveness represented quite a change from their previous passive role.

Outside of school
Along with the student preferences**,** student voice seemed to emerge. By that I mean that students were able to communicate complex problems and to seek help in resolving their problems**.** This "student voice" was different than the "I like" and "I don't like" that my students had expressed. It was far more complex and personal and demonstrated learning strategies and levels of engagement that students used outside the classroom. As opposed to expressing a preference using the structured "I like and don't like," the students chose their own words, using rich vocabulary.

The following examples demonstrate how my students used their voices to solve problems outside of the classroom. I call the first example "The Ticket." Toua, a Hmong man, had been in my class for three years. He has good literacy skills and was 38 years old at the time. From my journal:

> *While parking in front of our community garden, Toua received a parking ticket even though there were no " No Parking" signs. When he showed me the ticket, at first I told him to pay it. He said that it wasn't fair. I suggested that we take photos of the poles which lacked signs and protest the ticket. While I was away that week, I received seven calls on my answering machine from Toua. I called him back and found out that he had a court appearance that week. He had called my co-worker for help. But he himself went over and took and developed photos from the garden. When he went to court, he watched (I was told that he really studied what was going to happen but didn't ask for help) what happened to other people. When called upon, he showed the photos to the judge demonstrating that there were no signs indicating No Parking. In that crowded courtroom filled with people, a setting that he had never experienced, he spoke to the judge. The judge dismissed the ticket.*

The situation was so important to Toua that he found his voice to express his outrage about the parking ticket. He was able to use his voice and learning strategies to solve real life problems outside of the classroom. When his trial came up, Toua needed to provide his own photos to document his case because the photos that I had taken were locked away in my house and I was on vacation. He took the photos which documented his case. He prepared his own defense, carefully observed the proceedings in the courthouse, and found the appropriate vocabulary and method of delivery to meet the needs of the courtroom. He used a wide variety of strategies with confidence and success.

The second example also involves another Hmong man named Pao. Pao was the most literate in my class. He was married and came to the class with his wife. He helped her in class and was always

the first to answer questions. He kept a dictionary close at hand and was often translating words from Laotian to English. Pao was very quiet but pleasant and even-tempered. His comments always related to school and to the activities of the day.

Pao had attended a meeting with all of the gardeners and did not speak. The next day, I was surprised to be handed an angrily written letter. He expressed his frustration about his participation in our class garden. He was upset and seemed to be disappointed with me because he thought that I was ignoring the new students (he was new to the class) and not addressing their needs for a garden. It read:

> *I am Pao. I am very sorry for the meeting on the school at 5:00 p.m. for the garden*
> *program. I am thinking have problem because some people have gain(have) 2-3 way*
> *(gardens). This program help all peoples it not help old student.*
>
> *Help all people hardship, poverty, and poor people. Is it not new student don't have*
> *law in school. This model the Hmong people selfish talk to bad.*
>
> *are you teacher. You true mother and father for we student all person.*
> *(Student) doesn't come to school -- not thing give garden for them.*
>
> *Ought not too give but have many new student. divide point lots. New number*
> *garden. I think you mutual understanding.*

Pao was angry that a former student who graduated from our program and was now in another program still had a garden spot. Pao suggested that I divide the gardens from scratch. He was worried that he would not have a garden. Though perhaps difficult to understand, you can hear Pao's disappointment through his written words. This was the first time that Pao had expressed such strong thoughts and provided a strategy to resolve problems.

Lor provides the final example for the use of voice in the real world. I wrote this in my journal.

> *Observing the children in the children's classroom, Lor noticed enlarged playing*
> *cards. She told me, "teacher, I don't like. Children like. Good at cards. Get big,*
> *don't listen go to casino." She then related a similar story involving her*
> *kindergarten son. When she found out a few weeks ago that he was using playing*
> *cards in school, she told him to refuse. When the kindergarten teacher called her to*
> *inquire, she told the teacher about her fears about the casino. After hearing her*
> *concerns, I asked Lor if we should discuss it with Teacher Carol, the teacher for her*
> *children at our school. To my surprise when Teacher Carol came into the room, Lor*
> *took over the discussion. Lor was clear and direct in front of all the other parents in*
> *the classroom about her concerns for her child.*

Each of these three people seemed to find their "voice" over the course of the project. Their voices appeared to grow in strength. By the end of the project, other students were sharing their feelings of

depression, their disappointment in their own literacy compared with that of their children, their concerns for the safety of their parents in Laos. The women were even commenting on the laziness of their husbands who were attending the class. These statements were in contrast to their reservedness-- indeed reluctance even to express preference -- in the beginning of the project and during prior years. In addition, as I demonstrated with the last three examples, at least three students were able to connect using their voice to solving problems outside of the school setting.

These students had been in my classroom for three years. Perhaps they had previously asserted themselves outside of school and I was not aware of it. But this year, after participating in the choice activities, students demonstrated to me how they had used their voice outside of school. I felt that I could see a link between the practice with choice activities in school and a developing assertiveness in school along with an emerging assertiveness outside of school.

Divergent case. Many students demonstrated ambivalence to choice.
It is interesting to note that Tia, my translator, reported that the Hmong students enjoyed the choices but felt anxious about making the choices. They wanted to finish **all** the choices on the Choose 3 list. She said that she thought that they didn't want to appear lazy, a characteristic frowned upon in the Hmong culture. The ambivalence seemed to come from the conflict of trying to finish as many projects as possible and not appearing lazy and at the same time wanting to linger and enjoy the activities in which they were deeply engaged. The choice activities gave the students opportunities to work with a wide range of materials in an educational setting. This teaching method was different from the traditional model that my students had experienced in the Thai refugee camp and in their first school in the United States.

Some students expressed ambivalence about Choose 3 activities because, as Tia, my translator, explained to me, the students said that they wanted more words connected to the Choose 3 activities. Lor explained with Tia translating, "I remember words when we do things, but I like to do more things with writing with new words." Even though my students did show ambivalence to the "new ways" (Choose 3) of learning, they were engaged and were willing to do them.

Finding 3: Students' academic progress was aided by MI-informed activities.

As students made choices about how they would learn information, I was able to observe academic growth in the students. The students developed competency on the computer, in reading, writing and speaking, as well as in their drawings, and in problem solving. Mee, non-verbal in English at the beginning of the class, was now using English when selling her homemade hand sewn objects every morning. Lor and Yer, both with limited reading skills at the beginning of the project, and who had been in the class two years prior to this research project without any real literacy gains, were able to read Level One of the New Reader Press by the end of the project. I did not teach these areas, but rather the students learned them of their own initiative. I facilitated their learning by providing them with opportunities to learn about their own intelligences. I provided a structure to help them reflect on their learning strategies and progress. When I observed their intelligences, I noted it to the students and to the class. My students seemed to discover their strengths and use them to pave a way from problem to solution, later transferring one solution to another problem even if they were not aware of or could not name the strategies that they were using. I supported their efforts but did not show them the paths, for they were truly different for each student.

Lor is an example of academic growth aided by an MI based curriculum. She seemed to come to know her own intelligences and applied them to learning. Lor came to school pregnant. She sat at the back of the room near her husband. At the beginning of the project, she spoke rarely. I noted in my journal then that she offered occasional comments about what she wanted in school. She told me that she wanted to write, do math, and write on the blackboard every day. She asked if she could cut the magazines -- demonstrating to me that she was not used to using them in this way. On her initial survey of what helped her learn English, she answered "a little" to almost every suggestion. To writing and working in a group, she put "a lot." To singing, she indicated "not at all". She seemed to prefer a more traditional classroom. I noted in my journal that she had good letter-sound association but needed help in reading, writing and counting money. At the beginning of the AMI project, Lor had been in my class for one year.

Half way into the project, when we began to use the Choose 3 activities and authentic stories, Lor began to provide ideas for the stories. She began to attempt using the computer function of print on her own. She demonstrated an interest and ability with numbers and sequencing. Lor seemed happy to do the Choose 3 activities and did a number of different projects, trying to finish as many as possible. Like many of the other students, Lor showed ambivalence to some of the Choose 3 activities. For example, when I suggested that she draw, she said that she was not good at drawing, but drew anyway and continued to draw voluntarily on many occasions.

Lor became more verbal during Mondays (the days that we wrote a class story), offering more and more of the story for the week. She provided the entire text for a class story retelling a complicated Hmong folktale. She also worked harder during the Choose 3 days, rushing to get the materials. She was the first to jump up and grab the papers for Choose 3. I commented in my journal on her intensity completing a word find activity on a Choose 3 day. Later, in the computer lab, she was able to save, print and exit. By the end of the research project, Lor improved her reading and writing ability, although writing was still difficult. In computers, she mastered save, change the font, and locate a file on the disk. On her survey at the end of the project on the subject of "How do you remember English," Lor had changed her responses. Working in a group changed from a lot to a little, listening changed from a little to a lot, blackboard changed from a little to a lot, T.V. changed from a little to a lot, and singing changed from not a all to a little. Her responses seemed to indicate that she had changed her earlier attitudes about a traditional classroom and now valued some nontraditional activities, as well. By the end of the eighteen month research project, Lor could read at a more advanced level, often providing the entire text for a class story and helping to support other students in their reading, writing, and computer use.

I can't say what exactly accounted for Lor's progress or the change in her attitude toward the MI based activities, but I believe the introduction of MI based activities helped to support her learning. By the end of the research period, she seemed able to call up her strategies to solve problems. She was able to make decisions about Choose 3 activities. She was engaged for longer periods of time and volunteered her skills to help others read, write, and use the computer. She became aware of her own strengths and her own paths to learning. She talked about wanting more math and was vocal and supportive about the activities in which she showed strength. As time went on, I responded to Lor's academic progress and began to expect more of her. Perhaps she internalized my expectations and was able to achieve more in school. Increased teacher expectations may have been a factor in Lor's literacy development. By the end of the research project, it seemed that she was better able to tap into herself and solve new school-based problems.

Finding 4: Students increased their ability to reflect on their learning with repeated practice.

Prior to this project, my students had difficulty assessing their own class-related work. This is what I wrote in my log, six months before the project began.

> *May 1996, at the end of the school year, I asked my class to help me create their end-of- the-year student folder by selecting 3 samples of their work. There was silence. Not unexpected. My students have been more than reluctant to demonstrate preferences. They said that it was the teacher's job. I should choose. This was a typical answer, and one that I had come to expect. This day I didn't take "no", and I had each student open up their folders. I stood watch as each reluctantly took out 3 papers. "Any 3", I kept saying. That was the beginning of developing my students' metacognitive awareness.*

I repeated this assessment activity at the end of the AMI project. Comparing these two assessment activities documents the growth in my students' ability to make choices about their work and not relying on the teacher so much. At the end of the project, I again asked the students to select three of their work papers for their permanent file. I left the room for a moment leaving a co-teacher who is fluent in Hmong in my place. When I returned, the students had completed the task. When I asked the Hmong teacher if there was any problem or confusion, she said that the students didn't ask any questions, but that they went directly about the task of selecting papers for their folders. From the perspective of a teacher, the speed and ease in completing the task of selecting papers for their permanent work folder demonstrated to me their growth in metacognition. By the end of the AMI Project, the students showed growth in their ability to reflect on their learning.

Finally, each week, I asked the students to review one of their choice activities, using a photo journal to facilitate the dialogue. During the Choose 3 day, I photographed my students engaged in an activity, and then I mounted the photo on a page with these questions: What are they doing? Do they want to do it again? and Is it a good idea for school? In addition, at the end of every week, I listed all the week's activities and asked students to circle in red the activities they didn't like and in green the activities that they liked. When clarification was needed, I asked students, through a Hmong translator, to explain why they didn't like an activity. In the beginning of the project, I noticed that the students circled that they liked everything. However with time and practice, some of the students became more discriminating and indicated by circling in red activities that they did not like. For example, Yer circled that she did not like going to the children's museum.

Despite any cultural or other obstacles they may have had, by the end of the year, my students had learned to reflect on their own learning. Yer is a great example. The year prior to the AMI project Yer wrote in her journal that she didn't learn in school. At the end of this year, when I asked Yer what she would do about school next year because she had made so much progress, she answered, "I think next year I come back to school. I think not hard for me. I want to go talk to you." Yer was telling me that she had reviewed her own progress in school this year and had decided that she had learned so much this year that she could say that school was not hard. In addition, she wanted to discuss her school related options for next year and wanted my input. Yer was typical of the other students in the class who by the end of the project seemed able to think about their learning and to share this with me.

I think that it was important that my students could anticipate their weekly reflections on their learning. Asking students to reflect on their learning became a pattern in my teaching everyday, not something I reserved for the end of the year, as I had done in years past. The routine nature of the reflection seemed to help them prepare for the activity, and the repetition seemed to help them become better at reflection. As the classes went on, they were able to respond more quickly to reflective questions and were not confused by the questions as they had been in the beginning. However, it was not clear whether my students actually valued these reflection activities.

The Hmong culture also had an impact on self-reflection – one I had not understood when I first began asking my students to make choices and reflect on their learning. Tia explained that "even if there's progress or they can do something better, they're very humble, in a way saying we're not learning anything." I noted in my journal that when I told Chong that he was smart at drawing, he quickly said, "No good, teacher," but with a smile on his face and a twinkle in his eye. The Hmong tradition of not acknowledging one's own strengths thus may have impacted my students' readiness to reflect on their strengths.

Finding 5: Students had difficulty understanding MI Theory.

After reviewing my journal, it was clear that in spite of many introductory activities with MI Theory, most of my students had a very limited understanding of the theory. Some were able to understand more fully, others to a lesser extent.

In the beginning of the research project, I tried to explain MI theory to the class by using a picture of a brain and locating the eight intelligences in words and in pictures. In another activity, students were asked to identify their own intelligences through pictures, and I attempted to make and share an MI profile with each student. This was not a useful activity. The students had difficulty even with the aid of a Hmong translator. I am not certain what they were able to learn about MI as they appeared confused and didn't ask any questions.

However, I was surprised to see that my students, who have limited literacy in their own language, seemed to have some limited awareness of their own talents and those of other people around them. In the beginning of the project, a Hmong student wrote in her journal in response to my question, *"Who do you know is the best at sewing?"* She wrote:

> *"I don't know anybody I know. Mrs. ------- and -------- and old Hmong lady and Mrs.-------. She was able to identify people from her community who demonstrated this strength. A Hmong woman wrote in her journal, "What would like to be if you could be anyone. I don't know to be anybody. I want to be myself because I am not good at anything as mother and woman. I hold the reins of the family. I give the family support they want. I am responsible for keeping the family together."*

My students also demonstrated that they could identify each other's strengths. A Chinese female student tells a Hmong female student that she can't remember her name *"but the she knew the she could sew doll clothes very well."*

Even though my students could talk about their own and other's strengths, they had difficulty with the concept of "smart". While looking for pictures to profile a student's own intelligences, one Hmong woman cut out a family in a car with groceries. She attached no other explanation to the picture.

Finding 6: Choice and a trusting environment led to students taking greater control in the classroom.

Trust was developed in many ways in the classroom and was important to getting students to take risks and do the MI based activities. Allowing students to make choices about their learning helped to develop a sense of trust in the classroom.

Looking back on my research project, I think that unknowingly I started to establish a sense of trust in the early days of the project by taking the suggestion of one of my students and providing two separate classrooms, one for adults and one for children.

> *February 1997 In the beginning of the project I asked the class how we could make our school better. Based on the suggestion of a student, See, I asked the class if they would like separate rooms for the children and for the adults. I polled each student. Each said that they would. (This was a departure from the usual as the children have been with the parents for the past 7 years in the program. And I would have to struggle to find a second room). I then asked the students what we would do if a child was crying. Lor demonstrated her commitment to two classrooms by suggesting that mothers or people with children take turns helping Teacher Carol with the children. By this suggestion, she was volunteering to help with the children and be willing to forgo classroom instruction so that we could have two separate classrooms. We have formed two separate classrooms, one for children and one for adults. This example demonstrated how I was able to trust in my students' preference and the reciprocal trust that followed from this experience.*

The students demonstrated their growing trust in the class by their public participation in using the blackboard. At the beginning of the research project, the students were reluctant to volunteer to write their dictations on the blackboard. By the end of the research project, I didn't need to call on students to come to the blackboard. When I asked who would write on the blackboard, everyone participated. Choua often ran to the blackboard. Students came to the blackboard even though they were uncertain about their answers and had written them incorrectly. Students felt safe enough in the class to chance writing incorrect answers on the blackboard for everyone to see.

The garden project was another important factor in developing student trust. We received a grant to develop three community gardens with the students. How we spent the $8600 was a decision that was made by the students in the class. It was a re-creation of one aspect of their lives in Laos. The garden was more than a hobby to my students. My support of their gardening demonstrated that I respected their culture and helped them provide food for their families.

In addition, within the context of the class day, trust was developed as students' problems and interests became the themes that we explored, wrote about, and read about. For example, as I noted in my Teacher's Journal, I gave the students a choice of four hand drawn pictures and asked them to choose one for the class to write about together. The pictures depicted four problems that we had experienced the day before in school: women complaining that men wanted to go too fast on the spelling dictation; the students' inability to learn how to use a combination lock (part of our garden project); the presence of children in the classroom; and problems with the division of the plots in the garden. We talked about each of these problems but the class decided to write about the garden. The most passionate story came from the student who was protesting his garden plot. He wrote, "I have a big family. I want to plant onion, cilantro, eggplant, corn for the baby to eat. But some people aren't to have happy with me. I want big garden." The students were engaged in the theme of the story because the story was based on their interests. Since they created the text for the story, they were able to read it as well.

By the end of the project, the students felt comfortable enough that they planned their own end-of-year ceremony, which was a first for them. This was also the very first time that the students asked me for class time so that they could plan a party. They spoke in Hmong so that I would not understand. Ger emerged as the leader. He asked me for 10 minutes of time each day for a week which he used to meet with the men to plan for the food, gifts, and speeches. He also asked me to invite the president of the bank which gave us the grant. At the ceremony, the students got up and spoke their heartfelt thanks to me and my co-teacher. The students spoke about how much English they had learned over the year, how grateful they were for the garden, and for the personal support given to each student. It was really a moving day.

Although trust was not directly germane to MI based learning, it supported it. A trusting community allowed the students to take chances in their learning and to try new things. MI based activities were new to my students, and without that trust, they may not have been able to branch out in the new directions I was asking of them. Over the year, I have attended baby naming ceremonies, funerals, New Year's parties, tried to learn the Hmong language, eat Hmong food, and decorated the room with Hmong wall hangings -- all resulting in a close community. Trust was also nourished by responding to student strengths, by affirming the preferences of the class, and by respecting the many cultures of the class. All this contributed to the emergence of the student voice.

Finding 7: Through choice-based activities in a trusting learning environment, students expanded cultural norms.

The following are other ways that students expanded their cultural norms through choice-based activities in a trusting learning environment.

7a. Students work more independently and less in a group

Over the course of this project, I observed that the students seemed less bound to their cultural norms. The cultural norm of group learning was one area of change. The Hmong people value working within the framework of a group. Individual achievement is downplayed, the group accomplishments are paramount. Over the course of the project, I observed in class and noted in my Teacher's Log that group learning decreased. By group learning, I am referring to whole group learning, not learning in small groups. Whereas students initially were reluctant to express individual preferences in the Choose 3 activities, at the end of the project, I observed more individual problem-solving.

Finding 7

a. Students work more independently and less in a group

b. Students show increased value of nontraditional classroom

c. Students occasionally acted contrary to culturally defined gender roles in the classroom

d. Students prefer a classroom without their children

The results of a learning survey which I mentioned earlier, conducted in the beginning of the project and repeated at the end of the project,supported this observation. As I reported earlier in a pencil and paper survey, I asked each student to indicate whether an item, an action, or a social grouping was helpful to their learning -- a lot, a little, or not at all. In the beginning of the project, all the students indicated that they remembered English a lot when they worked in a group. The next day I reviewed the survey results with the class and asked them about working in a group. Yer explained that she liked doing things with a group because, " I am not so shy." Planning to write a story from a photo of a girl leaning wistfully on her hand, Choua stated that he was relieved that we were writing the story as a group and not alone.

At the end of the project, I repeated the same survey. The results showed that the students had changed their preferences for how they liked to work for the purpose of learning English. Instead of all agreeing about working in a group, three said working in a group didn't help them remember English at all, and the majority said that working in a group helped a little. Only one student said that working in a group helped her a lot.

To the question of working alone, in the survey at the beginning of the year, one student said that working alone helped a lot. The rest said that working alone helped a little. At the end of the project, however, the class was evenly divided as to whether working alone helped a lot, a little, or not at all. In sum, at the end of the year, at least one third of the class valued working alone to learn English, compared to one student expressing that preference at the beginning.

When we discussed the survey at the end of the project, Ger became very vocal (in Hmong) about why the students liked to work alone. Tia translated the Hmong, "They would rather work by themselves because there may be conflicts working together. So they work alone and get help from others when needed."

Individual rather than group needs seemed to emerge, as the project progressed, especially around the subject of our community garden. I am not certain that the same situation could or did happen in Laos. However, it was unusual to see this attitude develop as I had not seen it before. In my log, I noted that Lor asked the children's teacher to grow hot peppers for her. She did not ask the teacher to also grow hot peppers for the others in the class, and I don't think that she told anyone else about her request. In this case, Lor was acting as an individual and not as a member of the group -- a departure from the Hmong tradition in which the group needs were paramount.

The on-going class discussion about garden plots was another example of individual and group needs – regardless of cultural traditions, when it came to the garden, each man was for himself. It is interesting to note that we, as a class, have had garden plots for the past four years. The subject of land and who could have more or less was never brought up for discussion, but the discussion about the garden allocations was different now. As the class prepared to work in the garden, I received letters of complaint about the size and number of garden plots from two students, Koua and Ger. When I suggested that students with small or no families exchange garden plots with those with large families, I was met with great resistance and stony silence. One student, Mee, grew so angry with my request that she called another student and scolded her for bringing up the subject. Despite the fact that most of the members of my class were related and belonged to the same clan, rising interest in personal needs in the garden often overcame concerns for the group.

7b. Students show increased value of nontraditional classroom.
In the areas of learning strategies, as I have previously noted, I asked the class on the survey to indicate what helped them to remember English a lot, a little, or not at all. By the end of the project, the students reaffirmed through the survey results that they valued non-traditional approaches along with more traditional ones. Tia, my Hmong translator, reported after an after-school study session that the Hmong women said that they felt that they were learning more this year and wanted a longer class. They also said that I was doing some new things that seemed to help them learn. The students reaffirmed these sentiments as we discussed the "How I Remember English" survey.

In a follow-up discussion after the final survey, I asked the class the value of nontraditional tools (playdoh, legos) in remembering English. The students were able to quickly refer to products they had created months ago with the playdoh and legos: i.e. a monster with big eyes, big ears, and a big mouth. Most of these students had only experienced traditional teaching tools in their educational setting in Laos. The nontraditional tools seemed to make an impression on them.

Regarding education, the type of education that the Hmong students were accustomed to differed greatly from the approach I took during the project. In <u>Frames of Mind (1993)</u>, Howard Gardner described schooling in nonliterate societies as oral linguistic instruction taught by skilled elders or relatives on site.[11] Helaine W. Marshall in the 1998 TESOL workshop "Reaching ESL Students with Limited Formal Education" also talked about the educational profile of nonliterate people. She stated that they preferred to work in a group, to build a strong relationship with the teacher, to learn what is immediately relevant, to use oral transmission, and to have repeated practice.[12] My students' descriptions of the education that the men received in Laos closely matched Gardner's and Marshall's descriptions. The men were taught in a group in the kitchen of a house through a totally oral approach.

7c. Students occasionally acted contrary to culturally defined gender roles in the classroom.
Lor, Yer, and Blia provided examples of how the culturally defined roles of men and women became more elastic by the end of the project. The Hmong people have specific roles for the men and women. The women cook and care for the children while the men build houses and hunt. Both genders help with the farming. I observed that Lor and Yer frequently complained to me about their husbands, even though their husbands were attending the same class. From my log, where I recorded Lor's words, "He is lazy. He sits and watches TV. I work. I have many children." Both Lor and Yer seemed to be questioning the traditional roles of men and women.

The Choose 3 activities provided another example of the changes in these norms. While most Hmong women did the cooking, Blia, a man, chose to cook in the kitchen with two women. In another example, I had invited the class to build houses out of straws and sticks. Lor said that "was a man's job". Yet when I asked her if she wanted to try to build one, she seemed happy to do so and was joined by all the other women. In the end, the women made three houses. Of course, some cultural practices did not change. For example the physical separation of men and women is a common practice, and in my class men sat together at the back of the room and women sat together at the front.

7d. Students prefer a classroom without their children.
It was typical for Hmong people to keep their children within eyesight until the age of four. Yet in the beginning of the project, as I commented earlier, See asked for a separate classroom for children. I noted in my journal that Lor also clearly separated herself from the tradition of having children in the classroom when, in the middle of the project, she said that she wanted her daughter in the children's class even though her daughter, an infant, cried most of the time. Lor added that she didn't care if her child cried for two or three days. Responding to a picture of herself holding her daughter in her photo journal, Lor wrote "I am holding my baby." Responding to the question "Was this a good idea for school?" she wrote, " I like the baby, little go to the teacher Carol class - keep the children out." Pia responded in a similar way in her photo journal to a photo of her holding her daughter. She wrote, "I am sitting with the baby." In answer to, " Is this a good idea for school?" she wrote, "No, I want to study." Clearly, Pia saw that her child was interfering with her studying.

I also noted in my journal that Chou closed the door during the class to keep out the children. Contrary to Hmong tradition, the Hmong students no longer wanted their children to be in the same classroom with them.

CONCLUSIONS

Looking back on my original log entry at the very beginning of the project, I was amazed at the impact of MI theory on my teaching practice and on my students' learning:

> *Dec. 1996: I don't know a lot about my students. I can only observe their reading and writing. It is difficult to fit curriculum to student needs. It is difficult to assess low level learners. They have limited ability, no reading ability, limited oral vocab. They have low expectations, limited appreciation of their abilities. They are aware of the gap between themselves and their children. They are aware of what they do not know. They hold tightly to their culture and express disappointment with its shortcomings.*

My original thoughts contrasted sharply with my findings and conclusions at the end of the project. With MI based approaches, I no longer found it difficult to tailor the curriculum to student needs -- in a way, they chose it for themselves! The students were able to express their own needs which I included in the curriculum. This created a broader curriculum which fit the needs and strengths of the students. The students were willing to accept a broad curriculum change. It was no longer difficult to assess low level learners because their choices, input, and self-reflection helped me assess them. They no longer held tightly to limiting cultural norms and were more accepting of a nontraditional classroom. MI based theory had a significant impact on our community of learners and will continue to be an important factor in our future.

Reviewing my lesson plans from the past two years, I noticed that I offered few choices to my students prior to the AMI project. In preparation for an Interim Report for the AMI project, I started to code my log for verbal student preference entries that demonstrated when I offered choices to my students, for example, choosing from several photos to compose a group story, planning the number of times we went to the computer in one week, or deciding whether vocabulary meaning should be demonstrated through words, drawing, acting, or playdoh. In the beginning months of the project, I offered 5-7 choices on average during the course of each month. However, in the later part of the research project, I offered 11-13 choices per month. I had doubled the number of times that I offered choice to my class. Thus, it became obvious to me that one effect of MI theory on my teaching was offering more choices to my students.

Finally, informed by MI theory, I no longer lectured or struggled to impart facts to students, and as a result, my teaching was easier. I noted in my journal that I felt relaxed when my students were engaged in their own process of learning and solving problems. I saw them learning and exploring ideas. If I over-planned or rushed my students and did not give them time to solve their own problems at their own pace, I felt their frustration and knew that this was not good teaching. By the end of the project, I noted in my journal that I was more comfortable when my students were busy and engaged, and I served as facilitator and observer. Class worked best when I attempted to set the stage for their learning. I no longer asked what would I teach, but what would the students learn and how would they learn it. In my journal I noted, "The path from the brain to learning had to be self paved but community supported." Implementing MI theory, seems to have triggered changes in my students and in me and my teaching practice.

A NEW QUESTION

I learned a lot about my students through the AMI project, and believe the MI based approaches were a success, but I believe I can take MI even farther in next year's class. My MI research left me wondering what would have happened if I had explored how these students thought about their own thinking. I didn't ask or try to develop strategies to explore how the Hmong thought about intelligence. Who did they think was smart? Was intelligence located in the brain? Did they think that it could be changed or affected by learning strategies? Did they think that it was inherited and you get what you were born with? These beliefs could have affected their appreciation of MI Theory and their awareness of their own intelligence. There has been some research to show that becoming aware of how you think can affect academic performance. My students were able to think about their learning. What would happen if they were able to think about their thinking? What would have happened differently in this study if I had started developing my students ability to think about their thinking and then introduced MI Theory? These are questions I will continue to explore as I move forward with next year's class.