

UNCOVERING MULTIPLE INTELLIGENCES: A SPATIAL PERSPECTIVE IN THE WRITING CLASSROOM

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Teaching composition distinctly emphasizes manipulating language to communicate thought and learning. I have seldom heard a college student say, "I don't think well." I have heard many say, "I don't write well." If all of us think, can all of us communicate those thoughts on paper? Many cultures value artistic representation of thought through means of calculating, composing, dancing, interacting, meditating, painting, singing, and writing. Is it reasonable to believe that what is an acceptable representation of thought in our culture can be transferred to the writing classroom? If writing instructors implement Howard Gardner's theories about intelligence, students who do not learn linguistically may develop tools for learning that improve their writing skills.

Steven Zemelman and Harvey Daniels consider teaching writing to a community of students a "privilege" (3). This privilege carries with it a responsibility to embrace intellectual diversity in the classroom, allowing students to learn how to accept their uniqueness and allowing teachers to accept diverse approaches to learning. Leo Tolstoy said we are

so sure of ourselves, we are so impatient with the irregularities and so firmly believe in our ability to correct them, we are so little able to comprehend and value the

primitive beauty of a child, that we hurry to magnify and paste up the irregularities that strike us: we correct, we educate the child. . . . (Berthoff 144)

I would add two words to the end of Tolstoy's statement: **OUR WAY.**

Tolstoy's and Berthoff's advocacy of considering "how children learn" (Berthoff *vi*) encouraged my in-depth study of multiple intelligences developed by Howard Gardner. Multiple Intelligences Theory (MI Theory) proposes to "respect the many differences among people, the multiple variations in the ways that they learn, the several modes by which they can be assessed, and the almost infinite number of ways in which they can leave a mark on the world" (Armstrong *viii*). Educators' responses to Gardner's research in multiple intelligences suggest that the linguistic and logical/mathematical approach to teaching may be inadequate for writing classrooms (see Gardner, *Reflections* 201-202). James Berlin reports that the paradigm of teaching still ingrained in many college composition classrooms today is designed for linguistic and logical/mathematical intelligences. In contrast, MI Theory submits that this paradigm may be too rigid for *some* imaginative, creative minds to develop the necessary writing skills needed for college-level work.

MI Theory transformed my own metacognition when I discovered that I was dominantly spatially intelligent. Owning my differences and seeking to employ the visuals in my mind helped me to learn more efficiently in a linguistically dominant academic setting. This erudition prompted me to explore new areas of metacognition within the theory of multiple intelligences. I wondered, "Could multiple intelligences unleash the stagnant creativity of some students still bound by the linguistic and logical/mathematical paradigm called school?"

Exploring the Issue in the Teaching Community

In the December 1995 issue of the *English Journal* devoted to Multiple Intelligences research, Bill Tucker describes the concept of multiple intelligences as "a river of language" where

sometimes “students swim, sometimes float, sometimes paddle or sail”(27). In his study of visualizers during the composition process, he found that “extended time was essential to the composing process”(28). The whole writing process for visualizers was markedly different than the process for linguistically oriented students, as Tucker notes:

A first draft may really be more of a finished product to visualizers. Many of their dilemmas have been resolved in the prewriting stage, and they feel their first drafts represent more labor than would be apparent to the casual reader. They might also improve the first draft without marking it at all Unlike verbalizers, they don’t seem to need to see the whole piece in front of them to assess their progress. They have a better view of the “big picture” than verbalizers. For the same reason, visualizers may feel comfortable composing on a computer screen, whereas verbalizers may complain that they can’t view their whole text at once. (30)

In the final analysis, Tucker’s conclusion is:

If teachers are trained to cautiously assess these [cognitive] profiles, they might be able to address writing apprehension and writer’s block as efficiently as a problem with sentence structure. They could advise students about their composing strategies, engaging their strengths in spatial, logical-mathematical, musical, and kinesthetic forms of expression. (31)

Although linguistic minds relate to words directly and specifically, the spatial mind may experience writing as a direct transference of thought from mind picture to paper. It is a translation process from one language to another. Interpretation of that thought on paper displays the capacity of minds to think and audit meaning differently. Ann Berthoff explains that we should practice a “continual audit of meaning” to understand the dialectical process of the discovery of meaning (51).

Berthoff suggests that by using the perceptive powers of observation students reclaim imagination through:

. . . making meaning by means of mental images, . . . *imagining* is forming par excellence, and it is therefore the emblem of the mind's power. Students who learn to look and look again, to observe and to observe their observations, are discovering powers they have not always known are related in any way to the business of writing. If we trust "the intelligent eye," we can teach our students to find in perception an ever-present model of the composing process; they will thereby be reclaiming their own imaginations. (65)

Although Berthoff pleads for reclamation of imagination, her recommendations to attain that goal seem to fall short when practiced in the classroom. She suggests visualization and dialogue as the major catalysts for making meaning, but still excludes other ways of thinking to derive meaning (65, 121). In other words, it is possible that visualizing may be helpful for the spatially dominant intellect to reclaim imagination; however, the musically or linguistically intelligent individual might find visualizing distracting or confining when creatively composing.

Getting through school depends on how well we use, comprehend, and convey words. Language does not always have the same meaning to all individuals; however, communicating is vital to all of us collectively. Individuals are motivated to choose how they share their thoughts by how they view words. They may see words as:

1. the primary way of expression for creative, verbal or logical thinking;
2. the expression of meaning to explain visual or musical thoughts, but *secondary* for thinking creatively in visual or musical thought;
3. the supplementary way to expression while using gestures, physical role playing, or dramatic presentation of the thoughts of others;

4. or, just a medium for relating to the world interpersonally or to oneself intrapersonally.

Exploring the MI Classroom

To create a classroom promoting the concepts of Gardner's MI Theory, I developed a variety of activities based on Thomas Armstrong's charts on instruction in his book, *Multiple Intelligences in the Classroom*. The "Reflection Assignment" in Exhibit A, for example, allows students to choose the way they will share their understanding of a reading assignment. This task helps students recognize their diversities. The goal is to inspire deeper thinking while allowing expression that seems easier to the student in his or her own dominant intelligence. The most difficult part of this assignment is trying to make the students realize that they are actually working—displaying understanding by using their dominant intelligences may seem too easy to them!

For students who are spatially oriented, the drawing of a mandala is easy (see *Exhibit C*). The purpose is to help them discover more about themselves as individuals so that when they write autobiographies they are more familiar with thinking intrapersonally. Some of the interpersonal students find this activity frustrating and even annoying. As soon as students realize there are no wrong answers, however, they feel more at ease and often share more of themselves with each other. This project is an important prerequisite for the autobiographical essay that follows it. Although the ideas from the mandalas do not always show up in the written version of the autobiographies, they encourage deeper self-analysis.

Implementation of an MI-Based Classroom

The significant distinction of an MI classroom is the presentation of MI Theory, optional group work, and the appreciation of diverse ways of learning to encourage a community of openness. I devised the following steps to implement MI Theory in my college-level freshman composition classroom.

Step One

Assess student intelligences by administering the “MI Inventory for Adults” from Thomas Armstrong’s book, *Multiple Intelligences in the Classroom* (Armstrong 18-20).

Step Two

Instruct students to keep all writing assignments, all drafts of essays and other in-class work in a folder to develop a portfolio of their written work. Give options for journaling activities that will align with MI Theory intelligences to allow students to explore what works best for them. (See *Exhibit B*)

Step Three

Present an explanation of the seven intelligences in class. (See *Figures 1 and 2*) Encourage students to recognize their dominant intelligences and how understanding their own ways of learning can enhance their ability to write. Provide handout entitled “Seven Kinds of Learning Styles” from Armstrong’s book, *Multiple Intelligences in the Classroom* (27).

Step Four

Assign the “Reflection” and “Sun-Shadow” Mandala assignments to promote reflective and imaginative thought before writing assignments are due. (See *Exhibits A and C*)

Step Five

Explain and distribute a well-defined process of evaluative criteria to be used to assess student papers. Allow students to assess their own papers using this process to discover how the process of assessment applies to them.

Step Six

Administer a short survey late in the term to give students the opportunity to share how MI Theory and the activities used affected their thinking and writing.

Step Seven

Administer a second scrambled version of the “MI Inventory for Adults” at the end of the term to compare and conclude how students changed.

Step Eight






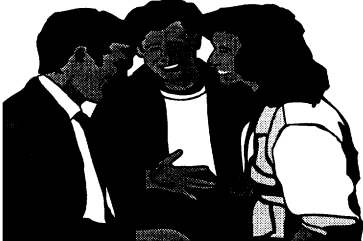
Assess portfolios by comparing first writing samples with last writing samples.

FIGURE 1. Linguistic Interpretation of Intelligences*

<i>Linguistic</i>	Words are the only way of expression. A linguistic person thinks in words; words are easily spoken and readily available to the thinker.
<i>Spatial</i>	Words are the primary expression of meaning, but secondary symbols for thinking creatively. If an individual thinks in pictures, words are the means to describe the visual elements that are interwoven in the mind. Pictures convey the meaning that words cannot describe.
<i>Musical</i>	Words are the vehicle to expressive performance. If an individual thinks in musical sounds, words may liltily convey the song to express the feelings within the mind and heart.
<i>Intrapersonal</i>	Words are a catalyst for relating to the world or oneself. If an individual thinks intrapersonally, words are tools used to express insight and understanding that can apply to many situations that may motivate others to think creatively about themselves.
<i>Bodily/Kinesthetic</i>	Words are simply a secondary way to express one's intentions and ideas to others. If an individual thinks in terms of physical movement—like a connecting crack of the ball against a bat— words are the medium to transmit ideas and feelings from an internal source to the external.
<i>Interpersonal</i>	Words are used as a catalyst for relating to others and exploring ideas. If an individual thinks in terms of others, words related depend on determining the essence of people and relying on instincts to elevate greater understanding among others.
<i>Logical/Mathematical</i>	Words and numbers are used to communicate and evaluate concepts. If an individual thinks in terms of numbers, words are meant for statistical and analytical explanation of conceptual theories and cognitive interpretations of equational concepts.

* A linguistic explanation as I understand the seven intelligences linguistically after reading Howard Gardner's explanations of them.

FIGURE 2. Spatial Interpretation of Intelligences**

<p><i>Linguistic</i></p> <p><i>That movie seemed to plod along without any plot or thought. I don't think I'd see it again. It was awful!</i></p>	
<p><i>Spatial</i></p> <p><i>Wasn't the scene in front of the Russian Basilica a gorgeous setting?</i></p> 	<p><i>Musical</i></p> <p><i>You know, the tune of that theme song just keeps running through my head. I wonder if there are any lyrics written for it?</i></p> 
<p><i>Intrapersonal</i></p>  <p><i>Joan asks herself, Why would someone ever do something like that? What motivates a person like that?</i></p>	
<p><i>Bodily/Kinesthetic</i></p> <p><i>That was a long movie! Let's play baseball!!</i></p> 	
 <p><i>Logical/Mathematic</i></p> <p><i>There was no logic in that argument. The time sequence of the whole movie was all messed up. I wonder who wrote that stuff?</i></p> $E = mc^2$	<p><i>Interpersonal</i></p> <p><i>Tom: Jane, that guy was innocent! Jane: That's impossible! Jim: Come on, guys, look at the clues. He was definitely set up!</i></p> 

** A spatial explanation as I understand the seven intelligences spatially from the perspective of watching a movie and reacting to it.

Insight from Students

Through writing samples and assignments, I observed the growth of writing abilities and the change in thinking processes of individual students. Shawn, for instance, told me early in the term that he is dyslexic. He had reservations about meeting the requirements of the class. By administering the MI Inventory for Adults, I learned that Shawn's profile (see Table 1) showed that he was dominantly interpersonal and bodily/kinesthetic.

TABLE 1. Shawn McCuen's MI Profile

Shawn McCuen	
Interpersonal	9
Bodily/Kinesthetic	9
Spatial	6
Intrapersonal	4
Musical	4
Logical/Mathematical	4
Linguistic	1

An MI Profile shows dominant intelligences according to the MI Inventory for adults based on Thomas Armstrong's checklist in *Multiple Intelligences in the Classroom* (18-20). Each intelligence is measured by answering ten questions that apply to that student. The number of applicable statements gives a number from zero to ten. The higher the number, the more dominant that intelligence is in the student's cognitive pursuits.

Later on in the semester I used the MI Reflective Assignment. (See Exhibit C) Shawn's choice "to lead a discussion" did not surprise me. What interested me was how admirably he managed the discussion of ethnicity that ensued. His questions were excellent. His peers responded well. He was at ease as the leader and took twenty minutes of class time without a single lull in the discussion. I also observed that Shawn's abilities in thinking and discerning the tensions and maneuvering responses to keep control within the classroom showed significant expertise. As Shawn's capabilities increased in the classroom, his analytical skills improved in writing as well.

Another student, who was musically dominant, sat toward the back of the classroom. During a ten-minute freewrite she wrote a little, stared out the window, wrote a little, stared out the window, then stopped writing and just stared out the window. Charissa seemed bored and unchallenged by the requirements of a first-year composition class.

A first draft of Charissa's autobiography lacked depth. She expressed her thoughts simply and her paper was of average quality. Although I knew she was articulate and intelligent, her writing revealed insufficient reflection. She applied broad statements to describe her thoughts. In the first draft Charissa claimed, "I think music connects the world in more ways than one"(Keller, February 1). When I returned her paper, she asked if she could rewrite it. That particular observation expanded to the following:

I was flooded with many compl[i]ments, but to me they seemed empty. Those people did not know the feeling I got when I was singing. I wanted to say to them, "Don't you know that I'm not doing it so you can just hear a pretty voice. I'm doing it because I love God." There were some people who knew what I meant, but there were others who had no idea. (Keller, March 1)

I asked Charissa how she approached the second version of her essay. Her eyes opened wide and she smiled, "Well, I used soft background music during my writing process more often since we talked about multiple intelligences in class. I wrote a paragraph, then did something else, then came back and wrote down a thought, then did something else." Her process reminded me of Armstrong's suggestion to bodily/kinesthetically dominant students to allow "frequent opportunities to get up and move around" during study hours (Armstrong 88). Charissa's profile (*see Table 2*) revealed her dominant intelligences as musical, interpersonal, and bodily/kinesthetic. By using tools that aided her thought processes, Charissa enhanced her depth of thinking and ability to concentrate while working on a subject area less dominant. I

believe she increased the quality of her work by increasing the quality of her environment for more focused thinking.

TABLE 2. Charissa Keller’s MI Profile

Charissa Keller	
Musical	10
Interpersonal	6
Bodily/Kinesthetic	5
Spatial	4
Intrapersonal	3
Linguistic	2
Logical/Mathematical	0

Insight from Reflection

Introducing MI Theory in the linguistically dominant writing classroom augmented the process of thinking by helping students to “make meaning” in the Berthoffian sense, ultimately producing better writing. Writers like Charissa and Shawn need to be revalued by a system using the dominantly linguistic approach to teaching writing. Students like these need external stimulation to process their thoughts in nonverbal symbols such as movement, songs, and pictures, or in verbal interaction. Writers who are spatial or intrapersonal may venture to verbalize what they see, feel, or hear, but their words often leave a wake of misunderstanding and ridicule due to an inability to express their nonverbal concepts with the same fluency as linguistically dominant peers. Valuing and pursuing understanding through acceptance of diversity allows students to probe more deeply into their own thoughts and gives them insight into how they write.

Many teachers in today’s writing classrooms are teachers, in part, because they learned how to use language within this current logical/mathematical and linguistic system. Some students feel ostracized by dominantly linguistic approaches to learning. Lectures and exams are tedious and incomprehensible to them. MI Theory suggests that adding musical presentation, spatial illustration, kinesthetic demonstration, interpersonal

interaction, or reclusive illumination could generate alternative ways of “making meaning” that not only “reclaim imagination,” but allow written interpretation of those creative thoughts to be expressed in greater depth.

I found that students developed as a community of learners, interacting and growing in their ability to think critically about reading assignments. John Hodge, a student dominant in bodily/kinesthetic and spatial intelligences, put it this way:

I believe that to have effective group participation a majority of the students or members must be willing to interact with each other. If they do not have any motivation towards this, then the group discussions will be bland. Anyway, the most significant difference that I observed within this classroom as compared to others was the volunteer interaction of everyone and the teacher.

Even a linguistically dominant student such as Amanda Bennett benefited from knowing her dominant intelligences. She wrote,

I always knew that I was an “okay” writer, and that I did well in English classes and not in math, but the MI theory really helped me to see why I was encouraged to write to the best of my ability because I realized that I was a linguistic person.

Others paid little attention to this discovery because their natural proclivity toward using such tools served them well throughout their high school years. It did not surprise them that they were dominantly intelligent in a given area. That dominance is what led them to college in the first place to pursue their particular interest.

Some who struggled to write according to the prescribed process they were taught in high school seemed frustrated and disgruntled with the idea of having to write at all. These students benefited most from learning that their dominant intelligence applied to learning writing skills gave them more

freedom to let their thoughts flow onto paper. Spatially dominant students learned to organize with “webs” rather than outlines, and sought to use their powers of observation to create better descriptive phrases, metaphors, and supportive material to make a point in their essays. Musical students took advantage of the soothing impact of music on their mental capacities. Bodily/kinesthetic students formulated their thoughts and ideas while running, “shooting hoops” or building models with Legos®. Those who learned by interaction with others gave themselves permission to work in groups, while those who learned by internal reflection permitted themselves to say no to someone when requested to be a study partner.

Exploring the Results

By tabulating the results of the “MI Inventory for Adults” I developed a data set that showed the distribution of intelligences in a classroom of thirty-two students. Out of thirty-two students twelve were dominantly musical and bodily/kinesthetic, scoring the maximum of ten points in one of the two areas. Another eleven students scored at least nine points in one of these two areas. In comparison only three students in the class scored above seven points in the area of linguistic and logical/mathematical intelligences. There were at least fifteen students who scored seven or more points in the area of interpersonal intelligence. The outcome of the MI Inventory (*see Figure 3*) indicated that the task of teaching writing to these students required new approaches that appealed to musical, bodily/kinesthetic, and interpersonal learners.

In response, I brought music to play in the classroom during writing assignments. I used group work to appeal to the interpersonal. In deference to the bodily/kinesthetic students I allowed more breaks and experimented with outdoor sessions. Much discussion of essays and topics appealed to the interpersonal students and allowed students to air concerns about their writing abilities. Because of my own spatial dominance, I used spatial activities as well, but used less than I

normally might have since the other methods seemed more appropriate to the class as a whole.

FIGURE 3. The Distribution of Intelligences in a Classroom of 32 Students

Out of 32 students **30** scored 5 points or *above* on **Musical** Intelligence.
Out of 32 students **28** scored 5 points or *above* on **Bodily/Kinesthetic** Intelligence.
Out of 32 students **24** scored 5 points or *above* on **Interpersonal** Intelligence.
Out of 32 students **23** scored 5 points or *above* on **Intrapersonal** Intelligence.
Out of 32 students **19** scored 5 points or *above* on **Spatial** Intelligence.
Out of 32 students **15** scored 5 points or *above* on **Linguistic** Intelligence.
Out of 32 students **14** scored 5 points or *above* on **Logical/Mathematical** Intelligence.

What I Learned

My experience with the results of these attempts to approach the writing classroom with a student-centered appeal to dominant intelligences mimics how new theories develop due to the curiosity of a teacher to help diverse learners. When I see an intrapersonal student not coping well with the group work I assign, I should be able to allow that student to work on his own rather than demand his participation within the group. Questions may arise about stretching the individual because learning can and should be uncomfortable at times. However, thinking and writing is a highly individual activity. Most classes require the lone activity of a research paper to show the capability of that student to master a discipline being studied. Students need to know the best way to approach a lone activity if they are *not* dominantly intrapersonal.

With MI Theory each student gains an edge by receiving acceptance of an internal process owned solely by that individual. For example:

- An interpersonal student discovers that talking out her ideas with another student before writing them down helps to develop clarity and consistency of thought in writing.
- An intrapersonal student understands that not talking about his ideas with someone works better to flesh out his topic and helps him to write ideas in isolation.

- A bodily/kinesthetic student finds that walking and thinking about the paper helps to clear her mind and allows her to return to the activity of writing ready to put something down on paper.
- A musical student learns to play soft background music while writing.
- A logical/mathematical student creates a detailed outline before writing.
- A spatial student draws a picture and develops a web to brainstorm ideas and discover subordinate concepts to write about before actually writing anything down on paper.
- A linguistic student brainstorms on paper, takes notes, starts writing, or creates a simple outline to follow, then starts writing.

These strategies give students a way to approach the task of writing without abandoning their personal uniqueness.

Many layers of applications can yet be discovered, and much research needs to be done. I believe this study only touches the surface of how Multiple Intelligences can augment the effectiveness of writing teachers in the classroom. Consider that:

- Knowing MI Theory may change teachers' attitudes to support differences in how students approach writing.
- Knowing MI Theory may change students' attitudes toward each other, enabling them to allow differences in each other's writing and in thinking.
- Knowing MI Theory may change a student's attitude toward writing, enabling the student to learn to write using his or her dominant intelligences in critical thinking.
- Knowing MI Theory may change the student's attitude toward him/herself, allowing the student to accept his/her ability to think differently and be creative with those differences in an environment where differences are supported.

How I Changed as an Instructor

MI Theory changed my thinking. I was able to relax in the knowledge that I approached teaching with a different concept of how students' minds work. I did not throw out the dreaded outlines because they did not work for me, a spatial learner. I emphasized the importance of outlines to the linguistic, musical, and logical/mathematical students as a valuable tool for them to organize their papers. When I presented alternative "webs" for organizing, an artist in my class felt liberated to learn that she could use a "web" structure to organize her writing after years of struggling with outlines. Those who enjoyed using note cards used note cards for research. Those who needed to write things down on scraps of paper and paste them together later did their research that way. Those who cared to illustrate their work with drawings or visual aids included them appropriately in their research papers.

Because I could say to the students that I approached writing differently than some of my colleagues, I could assure them that it was quite all right for them to approach writing differently. The students found some of my assignments unusual; but when they expressed themselves in a medium other than writing, they often discovered thoughts and ideas that inspired their writing.

How the Classroom Changed

When two-thirds of the students were strongly interpersonal, we developed group projects. Those who were intrapersonal were allowed to meet in twos rather than larger groups. We used small group workshops to read drafts of papers and critique them. Students started to feel a camaraderie that made the classroom safe and the discussions lively. During the course of the semester, only a few of the intrapersonal students never spoke up in class to make some kind of comment. Highly intrapersonal students seldom participate even when being graded for participation. As they shared their thoughts openly once or twice during the semester, I realized that allowing them to share one-on-one made them feel safer in the larger group as well.

When students were asked to explain how this class differed from other classrooms, they shed light on how teaching with MI Theory may develop an atmosphere of community, successfully enhancing the ability of students to develop writing skills within that community. For example, Heather Alexander pointed out,

I learned that I learn best by hearing, and talking, or teaching others. I was impressed to learn that I don't think things through first, I hear ideas from other people—make them my own or throw them out—then, when I discuss with others I reuse these ideas and new ideas come out [of] my mouth.

Heather's profile showed her dominant intelligences as interpersonal and musical. She was highly verbal in class and needed to talk her ideas through with others before she could write them down.

A dominantly musical and linguistic student, Amanda concluded, "I began listening to music as I studied and it made [studying] much more bearable and beneficial for me!" Like Amanda, Charissa found that MI Theory "made me use different techniques I normally wouldn't have thought about before. I found out that I learn musically. Well, I already know that I am musical, I just did[n't] realize it's good for me to study with music." Melissa, a student who was not musical but dominantly logical/mathematical and linguistic, expressed that "in past group experiences I felt as if I needed to 'carry' the entire work load. Yet, in this class I felt as if we all took equal responsibility. Whether or not this [is due] to maturity and intelligence or self awareness I am not aware." Melissa's assessment of the class was definitely a logical approach to the classroom situation. She reflected on previous experiences, compared them with her new experience, and determined that it was different, but that did not necessarily prove that the reason it was different could be attributed to MI Theory.

Drawing Conclusions

I have concluded that using Gardner's MI Theory does, indeed, "work" in my writing classroom. Using MI Theory challenges me to respect the variety of abilities my students bring to the classroom. MI Theory changes many of the attitudes of the students about learning and writing. The overwhelming response from those who were dominantly musical and/or bodily/kinesthetic was enough to show me that the majority of students enjoyed writing or wrote better when they used the tools that enhanced their learning.

Gardner tells us that students learn in different ways. That makes sense. He suggests that there are different routes that can lead to cognition. That makes sense. I know that I do not write a paper as I was taught to write. I also know that there are pictures running through my head that often flow onto paper in metaphors and analogies that might occasionally distract linguistic readers from the true meaning of my language. Linguistically dominant people may struggle with the writing of a spatial person. They especially struggle with the words of a spatial person who lacks the linguistic ability to express thoughts verbally. Fred Kemp reminds us, "That which changes our teaching often comes as an idea that strikes us like a bolt of lightning . . . the sheer sense [of it] . . . is inescapable." After this study, I am convinced that I will continue to experiment with MI Theory in my writing classroom to develop some form of "methodological clarity" (Kemp 5).

For me, MI Theory seems to be the best approach to teaching writing. Students benefit from knowing how they learn and how they are smart. By having tools that improve their ability to think creatively, students feel a sense of acceptance in the classroom. MI Theory recognizes all students as capable learners and suggests that they should also accept each other for their diversity. Gardner offers a viable alternative to past methods of assessing and understanding student minds in college writing classrooms. Consider those students discouraged by previous experiences who might change their minds about writing. Charissa Keller wrote in a note at the end of the semester, "I found I actually liked to write."

EXHIBIT A. Reflection Assignment

Reflection Assignment

Select one of the following essays from the "Reflection" chapter in *Reading Critically, Writing Well*:

"Black Men and Public Space"

"Speak for Yourself"

"Money for Morality"

"What's American about America?"

"Whose Body Is This?"

Then choose one of the following options to share in class on _____

1. Write a reaction to the essay you chose explaining what the essay meant to you and how you felt about it. Include a quote from the essay that made you think, surprised you, or caused you to question something that the author said. [Linguistic]



2. Play a song on an instrument or sing a song that expresses the moral of the essay you chose, or relates to a concept within the essay. (You may bring a taped song and tape player if you prefer.) [Musical]



3. Draw a picture that shows how you feel about the essay you read. Be sure that the drawing relates an idea from the essay. [Spatial]



4. Make a list of situations you have been in that remind you of the ideas in the essay. Choose one of the items on the list and analyze how it compares to the moral of the essay. [Logistical/Mathematical]

5. Do a charade in class to help the class guess which essay you read, then explain why you chose that essay and what you felt was significant about the way the author wrote it. [Bodily/Kinesthetic]



6. Lead the class in a discussion of one of the essays by asking questions that you believe would stimulate interaction. [Interpersonal]

7. Write a poem that describes your feelings about the essay you read and share it with the class or choose one of the other alternatives above to express your insights regarding the essay you read. Then explain to the class why you chose to express your feelings that way and how it helped you think about the ideas presented in the essay. [Intrapersonal]

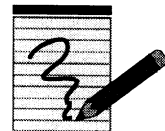


EXHIBIT B. Journal Activities

Journals

Try any of the following options based on multiple intelligences during the semester. Save any lists, pictures, thoughts on paper, outlines, etc. Report that you ran or walked while thinking about your paper, then write some of your thoughts on paper. Use four of the following methods during the semester to see which one you prefer. Do try four and keep the results in your portfolio under the title "Journal Entries."

Write down your thoughts on paper, then read them and think about how getting your thoughts down on paper helped you clarify your thinking. (linguistic)

Draw a picture of what you are thinking and then explain its meaning in writing. Then explain in writing how that helped to clarify your thoughts. (spatial)

Borrow some LEGO[®]s or building blocks. Listen to music in the background and build a model while thinking about what you like to write about or what you are interested in learning. (musical, bodily/kinesthetic, spatial)

While you are running or walking or bicycling, think about your writing project. Ask yourself questions about what you want to learn about writing and about a topic you would like to choose. Write down your thoughts when you return to your room. (bodily/kinesthetic)

Make lists of ideas and keep them. Then outline and organize them. Explain how making lists helped or did not help clarify your thoughts. (logical/mathematical)

Get together with several other students in this class. Talk about what you are writing and brainstorm about how you can make your writing better, or discuss your own paper with a friend or classmate and talk about how you think it could be made better. (interpersonal) Add music in the background to this option. (interpersonal, musical)

Go to the library and sit in a chair looking out over the campus, or go somewhere where you can be alone and undisturbed for an hour or two. Think about a paper you want to write; consider ideas and ask yourself questions about what you would like to write. Then write down your thoughts and ideas and questions. (intrapersonal)

EXHIBIT C. The Sun-Mandala Chart

- Source:** Claggett, Fran, with Joan Brown. *Drawing Your Own Conclusions: Graphic Strategies for Reading Writing, and Thinking*. Portsmouth, NH: Boynton/Cook Publishers, Inc., 1992, pp. 13-19.
- Level:** Intermediate to College Level (may be simplified for younger students)
- Student:** English Composition or ESL Composition Students
- Materials:** paper, pencils, colored pencils, crayons, markers, etc.
- Procedure:** For a step-by-step procedure refer to *Drawing Your Own Conclusions*.

Hand out the Sun-Shadow Mandala Chart to students; then share your own sun-shadow mandala and explanation with your students. Ask students to complete their list of sun images; then ask them to find an adjective to describe that sun image. Suggest that they put an antonym of the adjective for the sun image in the next column. Then have students select an image to represent the shadow adjective.

Have students draw, use clip-art, or use cut-out images to create a collage that represents their choices. Ask the students to write out an explanation for each choice using the adjectives. Then ask the students to share the collages and explanations in class.

Rationale: “The concept of [a] mandala, as used here, is drawn from the ancient idea of the circular shape as an archetype denoting the integration of a number of elements to make a whole. . . [It is] a natural precursor to writing. . . . The process of making a mandala moves from making metaphors (using the functions of imagine and feel), to choosing specific attributes for each metaphor (using the functions of observe and analyze), to integrating them into a circular design. The student uses all four functions—observe, analyze, imagine, and feel—in the process of planning, drawing the mandala, and weaving both the sun and shadow metaphors into sentences which frame the drawing. The mandala leads . . . [to] a variety of extended writing activities, from poems to interpretive character studies to reflective or analytic papers on concepts common to a number of literary works.” (Claggett and Brown 13-19).

Sun-Shadow Mandala Chart

Item	Column A	Column B	Column C	Column D
	Sun-Symbol I am most like a/an	Adjective of sun-symbol in Column A	Adjective that is an antonym of adjective in Column B	Shadow-Symbol I am least like a/an represents adjective in Column C
Animal				
Plant				
Color				
Number				
Shape				
Gem or Mineral				
Element Air/Earth Fire/Water				

Source: Claggett, Fran, with Joan Brown. *Drawing Your Own Conclusions: Graphic Strategies for Reading Writing, and Thinking*. Portsmouth, NH: Boynton/Cook Publishers, Inc., 1992, pp. 13-19.

WORKS CITED

- Armstrong, Thomas. *Multiple Intelligences in the Classroom*. Alexandria, VA: Association for Supervision and Curriculum Development, 1994.
- Berthoff, Ann E. *The Making of Meaning: Metaphors, Models, and Maxims for Writing Teachers*. Portsmouth: Boynton/Cook Heinemann, 1981.
- Keller, Charissa. "Music: My First Love." English 101. Bethel College, Mishawaka, IN. 20 February 1996.
- . "Music: My First Love." English 101. Bethel College, Mishawaka, IN. 5 March 1996.
- Kemp, Fred. "The Limits of Proof in Writing Instruction." March 1994:1-6. Nashville: A Presentation at the Conference on College Composition and Communication. Available online: Internet (<http://129.118.38.56/acw/database/essays/cccc94.kemp.html>).
- Gardner, Howard. "Reflections on Multiple Intelligences: Myths and Messages." *Phi Delta Kappan*. 77 (Nov. 1995): 200-209.
- Tucker, Bill. "Minds of Their Own: Visualizers Compose." *English Journal*. 84 (Dec. 1995): 27-31.
- Zemelman, Steven and Harvey Daniels. *A Community of Writers: Teaching Writing in the Junior and Senior High School*. Portsmouth: Heinemann, 1988.

WORKS CONSULTED

- Gardner, Howard. *Creating Minds: An Anatomy of Creativity Seen Through the Lives of Freud, Einstein, Picasso, Stravinsky, Eliot, Graham, and Gandhi*. New York: BasicBooks, 1993.
- . *Frames of Mind: The Theory of Multiple Intelligences*. 10th ed. New York: BasicBooks, 1983.
- . *Multiple Intelligences as a Catalyst*. *English Journal*. 84 (Dec. 1995): 16-18.
- . *Multiple Intelligences: The Theory in Practice*. New York: BasicBooks, 1993.
- . *The Unschooled Mind: How Children Think and How Schools Should Teach*. New York: BasicBooks, 1991.
- Wittrock, Merlin C., ed. *Handbook of Research on Teaching*. 3rd ed. New York: Macmillan Publishing Company, 1986.

