

Teaching to Their Strengths: Multiple Intelligence Theory in the College Writing Classroom

Introduction ~ The Story Begins

From an early age she loved pictures, especially in books that were visually busy, like those by Richard Scarry, or books that described things, like field guides to amphibians. She would pore over these for hours on end, memorizing the pictures and words. She can still remember them, from hellbender, reticulated quartz, to cumulo-nimbus. She grew to think of words as captions, as handles with which to grab bulky trunks of reality. She never did learn to sound out words, as she usually learned the whole word all together, but she learned to fake it for school.

She knew how to read well before starting school, and so was frequently chided for reading ahead in the group assignment or wandering off to hide under a table with books on secret codes, strangler figs, or little boys named Pablo growing up in large, hungry families. The complexity of the world fascinated her, and she loved adding more and more details to the universe growing in her head in the same way she like to add more and more detail to pictures, until she had filled a page with curling tendrils of graphite that were random, but balanced.

Learning to write was odd. She did not like lined paper--books had no lines and the lines felt confining. So she wrote very small, so as to have more room around her on the page, until teachers forced her to only write with crayons so she would have to write large. She shuddered every time she touched a line with her crayon or pencil. She reverted to tininess as soon as possible, which was middle school. One day a teacher insisted on changing the words she wrote because they "didn't make sense." To her they had been exactly right, but now she can't remember any more her original understanding. She only remembers that it is lost.

At that time, her writing was mostly good, because she rarely talked, but read lots of long novels, like *Dracula*, and *Wuthering Heights*. She also read a lot of fantasy and of course, the field guides and dictionaries. Her prose ended up being rather dense and filled with peculiar words like axlotl, pestiferous, and her construction was rather Victorian. The teachers seemed to like it and her. She also was enjoying art class, in which she always had at

least one idea to work on and tended to take a long time about finishing up because she wanted her work in the world to exactly match the idea in her head.

In high school she ran into trouble and some of it had to do with writing. She still was reading very well and always had things to say in class, in spite of dirty looks from her classmates. Unfortunately, the high school teachers did not like her writing. They thought her words were finicky, her ideas tangled, her transitions invisible, and since she clearly had read and understood, they thought she was lazy. She did however take a drafting class, where she learned to write very very neatly, which seemed to slightly improve others' attitudes toward the substance of her writing, as well as the form. In English class, she resigned herself to earning Cs.

This unhappy state of affairs continued through all four years, so that in college, in spite of excellent test scores of various types, and an abiding delight in reading, she did not major in English. She majored in biology; lab work was fun and she still got to read things like field guides. Biology turned out to allow little time for electives, and so for a while she switched to anthropology to mask the fact that she was actually taking many art studio and history classes, and aesthetics, and other things her parents felt were not financially wise. These art classes were very helpful because, besides teaching her about art, they taught her about what she now knows as rhetoric. She learned about audience, and context, and how to communicate an interpretation or argument. She learned that while sketchbooks and other kinds of practice are very helpful, drafting is at best a gamble and often an expensive one. Once you strike off a piece of wood or stone when sculpting, you couldn't very well put it back, and starting over took more money (squeezed out of an already tight budget) and usually did not produce the same result. Drafting was best done with little scraps of metal and wood, or inside the head where anything was possible.

Because she liked the professor, she took a class on semiotics and realized that she might have something useful to say about language after all, and English classes could be very good indeed. Perhaps she could then get a job like his in which she was paid to read books she liked and talk about them. So she decided to major in English, figuring that she would work the art in somehow, thus avoiding a potentially traumatic debate with her parents over Job Prospects. Of course, by now she had reached her junior spring, and so she squeezed all of the requirements into three semesters and one summer. As she would often read two-five books in one day for fun, she did not see any difficulty with this plan, except

that some of the classes she might want to take might conflict with each other or be unavailable. She majored in English, and though she still had some of the same trouble as in high school, she managed well enough to graduate with moderately good grades. She also enjoyed finally meeting people in class who loved books as much as she did.

After working at a few poorly paying jobs while living at home, she realized that she had to find some work that would pay more and not kill her soul with boredom in the first six weeks. Around that time, she heard that her old high school needed substitute teachers. She remembered how cruelly these poor souls had been treated when she was enrolled, but decided that since she knew many of the students already and knew the school rules, she would be safe from the worst difficulties. Over the protests of her youngest sister, who was still in the school, she started teaching, and finally found work she enjoyed. Thoughts of how much better college had been than high school led her to set her sights on being a professor, and thus to head off in search of an advanced degree.

Graduate school was rather a shock.

On the one hand, everyone was interested in reading, and being smart was valued, and professors treated students more like colleagues. On the other hand, some people were afraid of looking stupid, and some people were focused very narrowly, and some people like to argue to make themselves look smart. Like anything, it was neither good nor bad, but it was different from any other experience she had faced, and so was harder in that way. She loved the work—all the reading and analyzing and discussing--and she decided not to worry about looking stupid, or about people whose motives seemed self-aggrandizing. She consciously resolved to resist a narrow focus because it seemed to make people rather sour, and to make new ideas scarce; she also was very stubborn and refused to give up the fun of her comic books and artwork and all the other interests she had accumulated over the years.

At first she studied literature, and everything went pretty well. But after a while she started teaching writing, and took classes about how to do that, and things got very complicated. She studied theories about how writing worked and how it was best to teach, and while they sounded good, none described what worked best for her when she wrote something herself. In fact, her way of writing was not mentioned at all, except sometimes as an example of an immature way to use language. Well, this made her feel rather doubtful of her approach and she gamely tried to adopt the process described in the books and theories.

Her writing started disintegrating, and professors were impatient, having the same reaction as those high school teachers, thinking she was just not working very hard.

This was upsetting of course, but as mentioned, she was stubborn and she decided that she did not accept this approach to writing and not only that, she decided to prove her way was just as good, though different. At first she was angry and impassioned, because the more she studied some of these theories about writing, the more she understood that they weren't really about writing, but about thinking. The people making these theories believed that thinking and words became one—at least for any complex topic in the mind of any grown-up person.

Around the same time, a long-held interest in Asian culture began to coalesce around China. She studied Buddhism and Daoism, and rented many films and bought many books. She felt curiously at ease in the culture. Many of the books she read mentioned the difficulties Westerners, especially Americans, had in relating to Chinese culture and people. She kept waiting for this discomfort to make itself known, but it did not. Here and there she had chances to meet Chinese people, and became very close to some of them, who told her she was Chinese at heart, that she understood poetic logic, that her way of thinking, especially about language, was very Chinese. She did not feel particularly qualified to judge this herself, but as she began studying Mandarin, she felt at home in it, and enjoyed learning each character, slowly but surely.

After being in school for very nearly thirty years, she managed to combine very nearly all of these experiences into her doctoral dissertation.

In the following chapters, I address a wide range of topics in an effort to bring together ideas from a variety of fields that I think offer new ways for us to think about how we teach writing. Although the effects of culture on intellectual activity in general and writing practice in particular are recognized, the effects of biology have only recently begun to be established, and much of the relevant research is not well known among teachers. I believe that Howard Gardner's Multiple Intelligence (MI) theory can help us to understand how students may think and learn and communicate through a variety of intelligences beyond the linguistic mode with which we are familiar. Further, it is important to think about how intelligences are shaped by culture and to address multiple intelligences in a

coherent way in the classroom, so that students can take advantage of their native abilities, rather than fighting against them when writing.

In each chapter, I narrow my focus to spatial and kinesthetic intelligences for several reasons. First, more data has been collected and analyzed on the kinesthetic (haptic) and spatial (visual and haptic) neurological systems. Second, these two systems are believed to be among the first to evolve, and so are the most embedded in our brains, and the most likely to have higher functions of thought built upon them. Third, along with the auditory senses, computer scientists and educators have focussed on these systems in designing interfaces and educational material.

Many college composition teachers focus on socio-political contexts, using the politicized theories of Bartholomae and Freire, for example. However, they generally do not consider how these theories might be related to cognitive diversity. I hope that by considering in Chapters One and Two how intelligence, language and education are viewed in China, I can make the connection more explicit. Exploring a culture that values different intelligences and which fosters a discursive style that clearly illustrates how this difference can be manifest in writing will allow us to see more clearly the way our own culture also shapes our beliefs and expectations about writing. Of course an entire country with such a long history cannot be encompassed here, but I believe that we need to reflect more deeply on how other cultures understand intelligence and start including those ideas in our thinking.

I begin Chapter One by considering what is currently believed about thinking, learning, and writing, in contemporary composition, and on what assumptions those beliefs are grounded. This leads to identifying some beliefs that hobble our efforts to teach a diverse group of students, who experience the world and writing very differently from what we might expect and be ready for. I then raise questions about how both biological and cultural issues can be dealt with more effectively in our theory and pedagogy.

In Chapter Two, I examine the original formulation of MI Theory, and look at some ways it has been applied, some criticisms, and the most recent formulation by Gardner that has evolved in response. In particular, some critics take Gardner to task for not sufficiently considering cultural context in the original theory, a charge he admits is just. Gardner's revised theory and the work of other scholars have focused on the effects of culture, using China as a contrasting example. This cultural focus offers a useful model of how diversity

among students plays out in composition classrooms, and of teachers might deal with some of these issues.

Looking at research in neuroscience and cognitive psychology in Chapter Three, I present evidence which both supports MI Theory, and may explain some of the biological mechanisms that account for it. This research helps us to understand the magnitude of differences that exist in the way all people experience the world and their own cognitive processes, highlighting a degree of complexity and richness that we benefit from recognizing. The effects of culture and biology are in fact nearly impossible to distinguish in individual cases, but examining them first as separate categories will allow easier understanding of their interactions later on.

After establishing the contrasting theoretical contexts in composition theory and cognitive science, and reflecting on how MI Theory can contribute to our pedagogy, in Chapter Four I focus on how computer technology can be used to accommodate multiple intelligences in the classroom. Gardner consistently argues that technology allows multiple intelligences to be readily addressed in Western classrooms; I look at what makes computers particularly effective for teaching to or expressing visual and spatial intelligences, and how their increasing presence in our culture has intensified the need to address multiple intelligences in the college writing class. Changes in culture and technology have led to an increasingly urgent need to address the questions of why we teach college writing, and what kind of writing students need to learn¹. At the same time, there are difficulties and risks associated with using technology in a writing class. Drawing on recent research and my own experience with computer classrooms and web-based or enhanced classes, I assess teaching with technology and offer a more balanced view of both the challenges and rewards of taking this approach.

The Conclusion, brings together the theoretical ideas of the preceding chapters and offers concrete suggestions for how we might revise our pedagogy to better address the diverse experiences, intelligences, and needs of our students. There are ways we can use technology to do this, but we need not rely on technology. My own experiences with art illustrate how other media can be used to teach the critical thinking skills students need for writing and their academic work generally. I also suggest areas of further research that will

1 NCTE Resolution: On Viewing and Visually Representing as Forms of Literacy 1996, Fox, and Lanham starts with the premise that many careers and everyday tasks demand visual literacy and that this need is increasing.

help shed light on the many questions that remain unanswered. We must resolve these questions through more organized study, in order to achieve a truly inclusive approach to teaching writing.

Over the question of how to best to teach writing looms a larger cultural question about what communications skills are most relevant. Competent writing skills are essential; students also need to know how to carry these skills into the context of other media and that the best way for them to do that is not only through writing. If we are trying to prepare students for communication tasks beyond the college term-paper, we must help them transfer their writing skills into other media that may rely on non-verbal intelligences. In this cultural context we also must consider how teaching academic writing functions as a social and political act. Some of the scholars I discuss have raised questions about the politics of composition theory, especially as it tends to favor skills encouraged in Western culture. I have included an Afterwards that considers these issues in a longer-term and perhaps utopian light.

I have many questions to answer, but the most crucial is this: What would it mean to teach college composition fairly, valuing all intelligences, and still teach and require students to develop competence in writing? This question and any of its potential answers are complicated by the diversity of pedagogies, curricula, and students in the field of composition, which far exceed the scope of a dissertation. I hope to introduce a range of issues that can profitably be explored, and to focus on a few that are especially pertinent to decisions being made now in writing programs around the country.