

## **Dissertation Abstract**

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

Over the years many composition scholars have proposed theories about the cognitive processes that support writing, and have suggested pedagogies based in these theories. Too often these theories and pedagogies have evolved in isolation from the research carried out in composition, comparative education, neuroscience, and teaching with technology. This dissertation brings together theories of thinking and writing from these fields, checking them against one another and combining these three perspectives to envision a more balanced approach to teaching writing.

To begin, I establish the context for my study by laying out the range of theories about the writing, learning and thinking processes held in the composition community. In particular, I look at Writing Across the Curriculum (WAC) programs, as they represent our attempts to teach writing to students who have, to some extent, identified their own learning preferences in their choice of major. I then problematize the assumptions most of these composition theories are based on, given current research in neuroscience. Next, I examine the ways Multiple Intelligence (MI) Theory currently represents these three mental processes, those descriptions being more closely aligned with the scientific data. These comparisons allow a more unified view of writing, learning and thinking, and also shows us where we need do further research.

Howard Gardner provides the primary definition of MI Theory, but in the 20 years since he conceived this theory, other scholars have raised questions and conducted research; particularly regarding the effect of cultural context. I will explore these through a brief survey, emphasizing areas where this other work overlaps with composition theory and neuroscience. Both Gardner and other scholars contrast the U.S. Educational system with that of other countries; China stands out as a particularly useful example by demonstrating effective approaches to pedagogy that may be more inclusive of multiple intelligences and reveals how cultural biases can hamper our teaching.

Any theory of composition finds legitimacy in how useful it is to teachers. MI Theory has always posed challenges in implementation because the media required by non-verbal intelligences are hard to bring into the classroom, but computer technology now offers solutions to some of these difficulties. To illustrate methods of using computers to address multiple intelligences, I discuss several instances of my own experiences teaching with computers, using qualitative empirical methods (observations and surveys); connections are also drawn to MI Theory, composition theory, and neuroscience theories. The design of an on-line writing tutorial is studied as an example of how neuroscience theories can be applied to pedagogy with technology, while discussion of an introductory literature class focuses on MI theory, and the experience of students using the technology. Finally, I suggest paths of further inquiry, identifying gaps in current research on teaching with technology.

While computer technology holds promise for teaching to multiple intelligences, is is not a panacea; issues of access must be considered in order that our hope to reach more students are not foiled by the "digital divide" Several studies have been published recently that examine access to computers and the Internet; an analysis of these results gives a clearer picture of what we might do to ensure that technology serves our students, rather than acting as another stumbling block.

To close, this study looks forward, suggesting questions to be addressed in the future, as well as practical steps teachers can take now, to begin addressing multiple intelligences in their college writing classrooms.

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