Visualizing Composition: Computers in Student-Centered Composition Courses

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Table of Contents

Introduction  1
Computers in Composition  2
Alternative Theory and the Middle School Projects  5
Scholarship Behind Visualization  8
Visualization and Student Response  11
Concept Class  14
Conclusion:  17
Works Cited  18
Works Consulted  20
Introduction

As a beginning graduate student and certified computer nerd, I became interested in the ways in which computer technology and writing could be combined in composition courses. For me, computers represented the way to write—no worries about spelling, grammar, and the process of writing became a simple task. The more exposed to the theories and pedagogies of the composition process, alternative theories of learning and Paulo Freire’s “problem-posing education [which] bases itself on creativity and stimulates true reflection” or student-centered learning, the more I knew these were going to be the basis for my teaching style (84). Along with this, I began to seek out ways to use computers as tools central to establish just learning experiences for my students.

The pitfalls of this Utopian view of computers in a composition classroom can be summed up in the words of Gail Hawisher and Cynthia Selfe, when over a decade ago they caution: “In many English composition classes, computer use simply reinforces those traditional notions of education that permeate our culture at its most basic level; teachers talk, students listen; teachers’ contributions are privileged; students respond in predictable, teacher-pleasing ways” (55). Rather than having the type of computer use in courses as described by Hawisher and Selfe, I am striving to incorporate computers into the course so students will have more control over their learning, more in the lines of what Freire envisioned. A classroom where, “[t]he role of the students becomes that of searcher, and researcher: students look to their own experiences to make sense of the notions [raised] in class and then work to make sense of those experiences in the context of the experiences of others” (Fleischer 188).
One way I can envision combining computers and composition in creating a student-centered learning environment is by using the powerful programming of the computer to allow the students more control over their compositions. By this concept of more control, I not only mean context, process, but also creating new student genres by combining images and words—something seldom seen in student writing inside what are considered normal student writing genres: essay, research pieces, etc. The following is a recap of my journey to date as I try to find a way of combining computers and composition in a student-centered learning environment.

**Computers in Composition**

Using computers in the composition classroom is a much-debated subject, one with no clear answer. Articles and studies both support and criticize using computers in the composition classroom. In researching materials supporting both sides of this argument, I came across an article in *Computers and Composition* by Charles Moran. His article, “Computers and Composition-1984-2002: What have we hoped for,” synthesizing 20 years of articles published in *Computers and Composition*, dealing with the pros and cons of composition and the use of computers. From Thomas Brownell and Carole McAllister’s positive comments in the early 1980’s, through the mid 1990’s negative view illustrated by Richard Collier and Clifford Werier’s “Good writers are good writers, no matter how they write,” ¹ to the view in 2000 by Susanmarie Harrington, Mark D. Shermis, and Angela L. Rollins, that computers help some writers, but hinder

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¹ Quoted in “Computers and Composition-1984-2002: What have we hoped for” *Computers and Composition* 20 (2003) 343–358. Entire quotation is “Good writers are good writers, no matter how they write—their processes and their products are only minimally tied to the mode of text production, no matter what they say or feel about computers or about writing by hand”
others (Moran 347). Moran nicely sums up this debate by saying, “hope—that computers would somehow make a difference in student writing—has been one that “springs eternal” (348).

In my own experience as an instructor in a first-year composition (Freshman English) course, I have found computers serve as a valuable tool to create and reinforce a student-centered, collaborative learning environment. Information for the class is transmitted via websites; students are provided space on the computer for their own web pages, and by wiki programming are able to post drafts, do peer reviewing, and submit portfolios for evaluation. Images are also becoming part of the students’ routine submissions. When I assign a student lead teaching assignment, PowerPoint presentations are the norm, complete with visualizations as emphasis. This is an example of how computer, compositions, and images mix in my current classroom.

What I am not saying, however, is computers are the be-all end all of composition in the classroom. Computers are just tools used in establishing student-centered learning environments. If the instructor does not practice a teaching style that employs which allows for student centered, collaborative learning, and then simply having the students meet in a computer classroom will not automatically transform these students into wonderful “process-writiers” or the classroom to become “student-centered.” Although under certain circumstances a computer class setting may assist in this transition from a teacher to student centered learning environment, as described in Transitions where Mike Palmquist describes the changes in the student teachers as they transition from a traditional classroom setting into a computer classroom.
In addition to differences in the kinds and number of activities that the teachers used in each setting, they called attention to differences in the roles that they adopted in each classroom. Each of the four teachers in the Transitions Study commented that they differed in the way they related to their students and in what they expected from their students. In general, the four teachers believed in a student–centered approach teaching composition. Yet they found themselves relying on activities that were more teacher-centered in the traditional classroom such as lectures and whole-class discussion, and on activities that were more student centered in the computer classroom, such as in-class drafting and mini-conferences. (Palmquist 37)

In hindsight, I have found incorporating not only theories and pedagogies of composition will aid in this transition from a teacher-centered to student-centered learning environment, but also incorporating education or learning theories will help in this. Our job, as writing or composition instructors, should be not only to teach composition, but also to teach skills leading the student down the path to a life-long way of learning to learn. One way I envision accomplishing this, is to be aware of the differences in how students learn. As a first-semester graduate student, I was exposed to one way of accomplishing this: Using the learning theories of Dr. Howard Gardner. His theories of Multiple Intelligences focus on the different learning styles of individuals. In the project I worked on in a South Texas middle school, exposed me to how Gardner’s theory could be combined with computers to enhance the composition skills of students.
Alternative Theory and the Middle School Projects

Goldie Tappan is the middle school teacher. Ms. Tappan is not only a Special Education teacher, but she is also my daughter. In the fall of 2003, Goldie began a weeklong student-centered, collaborative project aimed at teaching parts of speech to eighth-grade resource students. I offered my assistance for this project, because it was not only a first hand opportunity to observe real-world teaching, but also provided insights into how teaching composition is aided by incorporating computers into the classroom.

Augmenting the use of technology for this project were principles found in Howard Gardner’s theory of Multiple Intelligences. According to Gardner, there is evidence for the existence of several relatively autonomous human intellectual competencies. Among the seven listed are those that pertain directly to this group of students. These are kinesthetic, which is movement, touch; spatial, which is visual and both inter /intra personal intelligences (Gardner). During my conversations with Goldie, I found out this is one reason she brings computers into her classrooms. She feels that working with computers allows students to use these skills to learn.

This project was collaborative student effort to create a parts of speech e-book. Beginning this collaborative e-book project, the students used digital cameras to take pictures. These pictures were the images used as support for the definitions the students would write for the parts of speech. When the students began composing their definitions, using the traditional methods of pen and paper, their interest in writing was very low as students barely produced one-sentence definitions for half of the required parts of speech. There reaction to writing was much the same as those described by the
freshman composition teacher, Candice, in *Transitions*. Candice describes her students’ reaction to being asked to draft in the traditional way—with pen and paper as “It’s almost impossible to get people to draft with a pen and piece of paper in the traditional classroom. If I have students sitting around in a circle doing freewriting by hand, I find that they’re resistant. They’re lethargic. They roll their eyes. They often don’t want to do it” (qtd in Palmquist 40).

The time spent working on composition on the computers, however, seemed very productive for the writers. Given access to computers, the students not only finished the grammar definitions, but they also composed the sentences, which when combined with their pictures completed the textual / visual definition combination. Again this was supported by the *Transitions* study where the teachers discovered “that students in the computer classroom take full advantage of time devoted to in-class writing in ways that students in a traditional classroom do not” (Palmquist 97).

Continuing with this use of computers, and visual images in compositions, during the Spring 2003 term, the same group of students began a more complex writing project. Again using digital cameras, the students took pictures representing an event in their life. With these pictures as a visual basis, the students composed the text for the stories using word processing programs and imbedding the pictures in their stories. Viewing these stories shows the increase in the composition skills achieved by the students. The stories are composed of 3-4 paragraphs where the e-book on grammar only contains one-sentence picture captions. From this preliminary work, it appears as if the use of computers coupled with the incorporating of visual images encouraged the production of more written textual materials in the students. This kernel of a possible connection
between the visual and the textual combined with the enabling technology, which urged me on to more inquiries into the possible connections. Another possible connection I found is between the middle school students and the first year composition student.

It is interesting to note in studying the similarities between reactions to composition and computers between the middle school students and those students involved in the *Transitions* study. However, sets of students displayed similar reactions to the process of writing in a traditional setting and a computer classroom setting. Again, this brings up questions of not only bringing computers into the classroom which would allow for the combining of visual and textual, creating an new genre for student writing—visutext, but also, how does the incorporation of educational and learning theories help establish the student-centered environment which allows for the creation of visutext.

This project into the morphing of collaboration with technology and multiple intelligences is just a small indication of how far we can go in the area of composition. With the technology available today, why not combine the composition course with one on visual media. Students could write about images, either still or moving and compose their works using computer programming which allows for the insertion of images could be visually shared with their audiences. Professor Fox argues for combining of visual and textual in the coming years to meet the challenges of writing instruction.

In proposals for new courses, syllabi for existing courses, descriptions of growth in teaching, etc., articulate to administrators, students, and the general public that writing, reading, and electronic media (especially visual media) are the most active, combustible learning processes in existence—for discovering ideas, for analyzing ideas, for evaluating and
Visualizing Composition: Computers in Student-Centered Composition Courses

connecting ideas. What's more, when the reading and writing of print works in tandem with electronic media, then hell’s a’ poppin’. That is, any writing instructor knows how powerful writing—visible language—can be at helping students generate ideas and make connections between ideas. (Fox)

Current students are ones that have been raised on the visual media. They have never known life without movies, television, video games, and computers. Instead of fighting this visual input, why not use it to an advantage? Use images to help the student understand that words on the paper are another kind of image—they are the symbols of language. The visualization of the words became their thoughts placed on paper for their audience to see.

**Scholarship Behind Visualization**

Interest in the area of the visual nature of writing is not new. In her article, “From Analysis to Design: Visual Communication is the Teaching of Writing,” Diana George addresses the history when she writes, “the history of writing instruction in this country, there has been some attention to the visual nature of writing compositions, if only, in the earliest textbooks, to emphasize the importance of handwriting or penmanship as a visualization of the writer’s character” (20). George then goes on to present the visualization of writing in concepts of modern theory as:

[it] has become common today to talk of multiple literacies, to encourage the uses of visual communication in the teaching of writing, and to argue that writing itself is a form of visual communication. What’s more, to the extent that this confusion remains unaddressed, visual and written communication continue to be held in a kind of tension—the visual
figuring into the teaching of writing as a problematic, something added, and anomaly, a ‘new’ way of composing or somewhat cynically, as a strategy for adding relevance of interest to a required course. (12-3)

Expanding on the integration of the visual and verbal, George proposes that future students will consider the merging of the visual and verbal as, “not as attendant to the verbal but as a complex communication intricately related to the world around them” (32).

As future students head in this direction, as technology makes visual communication both easier and more available to greater numbers of students, how could this merging be accomplished? In her work “Integrating Media Literacy into the Study of World Literature,” Renee Hobbs brings this issue to the surface by quoting Robert Scholes, “English education [should] emphasize their [student’s] development of a set of intellectual tools, incorporating a wide range of ‘texts’ [and Scholes] invites teachers to develop new kinds of courses and explore a new relation between reading and writing in the courses being taught” (qtd in Hobbs 1). Roy Fox has one possible answer for this question.

In his article on incorporating images, PowerPoint, and the composition classroom, “Like Monkeys in a Tree: Writing, Media, Thinking,” Fox writes of his change of thinking in regards to the merging of the visual and verbal,

[by the early 1990s, I came to value visual and verbal processes equally. I placed the image at the nexus of composing and comprehending—as the central, most unifying element of any kind of literacy activity, product, or process. In fact, I believe that the most important kinds of meaning are
built for our personal interactions with images—whether *in* language or mediated by language” (emphasis his 1).

This view has basis in linguist Ferdinand de Saussure’s interpretation of the signs of language, semiotics, which says that:

Semiotics focuses on three elements of the ‘stands for relationship of signs: 1) the object or referent; 2) whatever the object stands for, and 3) the person using the object to stand for something. Signs bear meaning, and one sign may be read in terms of another. (Cobley and Jansz 12-3)

Now there becomes a sound theoretical background for the merging of visual and verbal images in the writing classroom. Considering that both images and words are signs, and since, according to Saussure, “[s]igns bear meaning, and one sign may be read in terms of another,” then combining visual and verbal becomes a way of communication that is interrelated, both supporting the total piece meaning (Cobley and Jansz 12-3). This concept becomes important when considered in the light of Howard Gardner’s educational theory on Multiple Intelligences, and the visual learner. As I discussed in my work with the middle school students, incorporating Gardner’s work allows for stimulating multiple intelligences through:

- Words (linguistic intelligence)-the concept of writing the grammatically correct sentences-regardless of the length
- Pictures (spatial intelligence)-using the pictures as the basis for the book also having the students select their own subjects

Fox also sees this connection; again as he writes of “regard[ing] scientists and engineers as practical folks who work with ‘real things,’ their accounts of visual/verbal thinking
seem especially intriguing” (2). He supports this anecdotal thinking with an example of one of the most famous scientists of the twentieth century, Albert Einstein, who was “reported to have been nonverbal, sometimes violent as a child; as a preschooler, he is said to have attacked his sister with a trowel, and that only after young Albert began attending school—a school that operated on Johann Pestalozzi’s principle that all understanding is rooted in visual thinking—did his talents begin to bloom” (2). If it is true, that understanding is rooted in visual thinking, then how do students react to compositions enhanced with visual images? Is a work with embedded images clearer to the student? What effect does the image have in the student’s analysis of a piece of writing?

**Visualization and Student Response**

To attempt an answer to the previous stated questions, I developed an inquiry to addressing these questions. However, why ask in the first place? Why know how students’ react to a composition whose textual base has become an inter-textual base with the introduction visualization? Because, “[w]riting instructors who hope to function effectively in …new electronic classrooms must assess ways in which the use of computer technology might shape, for better or worse, their strategies for working with students” (Hawisher and Selfe 55). If incorporating the visual in textual materials, with computer technology, has no benefit for the student, then it becomes another mindless use of technology.

This inquiry was designed to gauge student’s reactions to a piece of writing with images; therefore, a sample piece was needed. A student-writing sample was obtained—with images to enhance its text. Since the composition was generated with a word processing program, it was possible to delete the images and produce another work. Now
this second piece would have the same textual content, without the images. To place the writing samples in a contextual basis, a student profile and an assignment description were created. Participating students would not only be able to place the sample writing in a real-world setting, they would have a basis for several of the survey questions. A Lichert Scale survey form was designed and instructors were enlisted to have their students participate in the inquiry.

Four of my fellow instructors of First Year Composition at Texas A&M University-Corpus Christi agreed to assign the survey as an in-class assignment. Due to attendance and other issues, actual students participating in the survey were 47.

In examining the Median and Average data for this survey, the student-writing sample with the embedded image scored better in all but one of the surveyed areas.

The writing containing the image scored better in the questions concerning:

- Question 1: *The piece has a clear topic*. For this question, the sample with the image was rated, on average, .06 higher than the sample without the image.
- Question 3: *The piece provided accurate information*. For this question, the sample with the image was rated, on average, .13 higher than the sample without the image.
Questions 1, 3, and 4 are ones dealing with topic and the support of that topic using information and documentation of that information. From the responses, it appears using visual images creates a work, which enables the reader to find a greater depth of meaning from a single reading. Since reading can be defined as “a medium that depends upon finely developed encoding and decoding skills,” then somehow the introduction of images enhances those skills in the reader (Penrod). If the introduction of images produces works that “shifts the attentions away from the traditional focus in visual semiotics” and then treats “images as thought they were analogous to vocabulary with denotations and connotations and instead focus on how they are combined and become ‘statements’ in the same way that grammar in linguistics focuses on how lexical items are put together in to larger wholes to create meaning,” could this be a boom in composition literacy for a generation that “have grown up in an image-rich culture” where “communication and composition absolutely will include the visual” (Street; George).

The only question where the piece without images scored higher was Question 2, which deals with how “The piece used descriptive phrasing effectively.” There the student sample without the image scored .07 higher than the work with the image. A representative comment from those who read the piece without images stated, “The piece was very descriptive in scenery of Woodstock and the amount of concert goers that attended the show;” while a representative comment from the piece with images was, “This assignment was not very descriptive, didn’t look like it provided much research.”
On the surface, it appears as if the students, while willing to forgive surface or grammatical errors, were looking for more descriptive textual information to support the images. Considering the surveys as a whole, it appears as if adding images to a piece of writing does increase the depth of understanding that students take from writing. This could be why they were willing to overlook surface errors, but want more in-depth information. If a picture is worth a thousand words, it appears as if the students were looking for more of them in the text.

**Concept Class**

As interest in combining visual and textual in student writing grows, university instructors are beginning to open the door to this concept of combining the visual image and composition. This appears as a growing trend as illustrated by a Google search using the terms syllabus, English, online, visual, and images yields over 16,000 hits. Some of these are strictly online syllabi while some have links to images that will serve as basis for papers. One site that incorporates image links and visualizations is Ben McCorkle’s Ohio State English 367: Reading the Image: Visual Representations of Subversion and the Status Quo in American Culture. As a final ‘research’ project, this course allows for alternative modes of presentation, like a PowerPoint Presentation. PowerPoint Presentations are one way of combining the visual / texts to create a visutext, along with the more traditional WORD document with an imbedded image. Both programs allow for the creation of this new genre of the visutext, but the PowerPoint incorporates movement with the visual, allowing for even greater student creativity as PowerPoint programming has features, which allow for the insertion of movement and sound. PowerPoint therefore, would allow not only for the stimulation of spatial learning, but
also auditory—in both writer and reader. It is in the direction of PowerPoint Papers I would like to take my concept course.

The theme of this course is the turbulent decade of the 1960. The rationalization behind this, I feel, is most students today have some connection with this timeframe, through grandparents, parents, or they themselves came of age during this era. As a reaction, reflection, research-based course, students would be responding to images found on public domain websites, such as the National Archives Website. For a student-centered learning environment this is a critical point, for I feel students should be the ones controlling the content and topic of their work.

Students would analyze selected images and compose pieces reflecting on these images. Composing on a program like PowerPoint enables a student to share visually their writings with audiences. This concept of PowerPoint should not be thought of as a PowerPoint presentation in the traditional way, but rather think of it as a moving WORD document. The composition part of the piece is still there, but it is enhanced with the images presented visually by PowerPoint. Using images to help the student understand that words on the paper are another kind of image—they are the symbols of language is another side of this concept. The visualization of words can become thoughts placed on paper for audiences to see. Again, this view has basis in linguist Ferdinand de Saussure’s interpretation of the signs of language.

Another reason for privileging the PowerPoint Presentation over a traditional—if any computer program can be thought of as traditional—is student enthusiasm. During my work with first-year composition students, I observed when the plans included any type of student-centered writing to be shared with classmates, the majority of the students
preferred compiling a PowerPoint presentation. I would then argue for encouraging a format of writing students enjoy and stimulate more textuality in a piece, rather than stifle textuality just for the sake of convention. The same concept of intermingling images and words can be achieved, if so desired, through using a standard word-processing program like MS WORD, as illustrated by the Visualization and Student Response study.

Since this class is set in a “virtual” classroom, computers, literacy is necessary. Students do not have to have a high level of computer knowledge, but the basic skills are a requirement. In a college environment, students should have these basic skills to take advantage of a computer based, visual composition class. According to a survey of both first year and upper class students, conducted by Dr. Susan Loudermilk during the Fall 2001 Semester at Texas A&M University—Corpus Christi, they would. This survey shows:

- An average 82.5% of first year students access the Internet from either home or on campus (TAMUCC)
- An average 64% of the first year students spend 1-5 hours a week online for class work
- Internet use for class projects is widespread, as 99% of the students surveyed have done some.
- Students are familiar with using a website in class work, as 76% of the students stated they have done so
- Multi-media projects have been done by 68% of those surveyed

This class is my vision, my dream, where I would like to take my students in the future, as they struggle with writing in an increasingly image-orientated society.
Conclusion:

As I continue looking for ways to combine computers and composition to create a student centered learning environment, I must keep in mind the words again of Hawisher and Selfe reflecting on the impact of computers in the classroom. Envisioning computer use into the next century they remind us computers “on the one hand they’re [computers] greeted as revolutionary tools that will cure the ills of outmoded educational approaches and on the other they [computers] are viewed as expensive instructional delivery systems that have the potential to destroy the human element in education” (291). The challenge for me, and for every far-thinking composition instructor is how to avoid this; to keep computers “in their place” as just another tool of the trade.
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Johnson 22


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