

Learning visual literacy through on-line discussions

William T. McInnish

Pizitz Middle School, Vestavia Hills, AL

Vivian H. Wright

University of Alabama

Abstract

This research focused on using on-line discussion groups to teach visual literacy. What gains are or are not being made through the application of on-line discussions to teach visual literacy? Also, what are students' perceptions of the effectiveness of on-line discussion groups in this discipline? Data from student interviews, an on-line survey of student perceptions, and discussion postings from the class were analyzed. The data indicated that on-line discussion groups could teach visual literacy theories and concepts; however, on-line discussions were not helpful in the students' group project of applying the visual concepts learned to complete a web-site creation assignment.

Introduction

Many have debated the definition of visual literacy. John Debes, in 1969 defined *visual literacy* as:

Visual literacy refers to a group of vision-competencies a human being can develop by seeing and at the same time having and integrating other sensory experiences. The development of these competencies is fundamental to normal human learning. When developed, they enable a visually literate person to discriminate and interpret the visible actions, objects, symbols, natural or man-made, that he encounters in his environment. Through the creative use of these competencies, he is able to communicate with others. Through the appreciative use of these competencies, he is able to comprehend and enjoy the masterworks of visual communication" (1969, p.27).

Visual literacy is not a new subject to the academy; it has been heavily researched and articulated since the late 1950's. However, opinions of use, focus, or definition of visual literacy vary. Baca (1990) purported that, "Visual literacy research is needed to identify the teachable visual literacy skills" (p 70). Visual literacy skills change with new technologies; therefore,

identifying teachable skills is an ongoing effort. Begotray (2002) stated, "Incredibly affordable access to information technology has provided new possibilities for developing visual literacy" (p.6). The role of visual literacy is ever changing with the growth of technology. Visual literacy has been said to be *eclectic* in nature by many authors (Hortin 1994; Braden & Hortin 1982; Jonassen & Fork, 1975). The ever-changing face of visual literacy is seen in the growing number of applications used to express its concepts. In Begotray's (2002) two-year study of adding visual literacy to the language arts curriculum of a new Canadian school, the largest challenge was teaching the teachers. Preservice education and inservice training had not prepared teachers for this new way of presenting language visually. Teaching visual literacy requires background knowledge and experiences to formulate new strategies in the classroom. Bringing visual literacy into new teaching methods takes teacher training (Begotray, 2002).

On-line Discussions

The term on-line discussions, for purposes of this research, are electronic communications that include E-mail, on-line chat, and on-line threaded discussions. Deciding the effectiveness of applying on-line discussion groups as a method of teaching different disciplines and concepts is highly debated. CMC, computer-mediated communication, is often used when discussing on-line courses, and activities such as e-mail and discussion groups outside the classroom (Comeaux & McKenna -Byngton 2003). Discussion group postings can be difficult to analyze due to the sheer bulk of information. As seen in other studies (Moloney, Dietrich, Strickland, & Myerburg, 2003; Swan, 2002), facilitating an on-line class is time intensive for the instructor, however, feedback and input from the instructor and students is important. A common thread in the current research of on-line discussion groups is community building (Poole, 2000; Ahern & El-Hindi, 2000; Swan, 2002). In Swan's (2002) study, she

looked at 73 courses for correlation on 22 course design factors. Her findings support the importance of interactions for on-line teaching and learning. Swan states, "Students are more satisfied when there is interaction with course content, instructor and other students" (p.44). Poole (2000), in her case study, noted students adhere to course content closely when posting threaded discussions. Community building was one observation she made as students' discussion groups progressed.

Another issue to consider when conducting on-line discussions is the ability of the group members to trust. For free and open communication to occur, all members must have a feeling of trust that their ideas will be received with respect, and read with patience (Hoag, Jayakar, Krishna, & Erickson 2003; Mcfadzean & Mcrenzie, 2001). Distance felt by the group is reduced and trust is built (Danchak, Walther, & Swan, 2001).when participants use words that show the inflection and tone that would be heard in verbal communication.

Teaching through On-line Discussions

Taking discussions to an on-line environment frees valuable class time for the activities that require the face-to-face time with students and instructor. It also relieves the problematic scheduling of space, time, and individual availability. It seems the creativity in applying this new media to various disciplines is driving course management systems such as WebCT and Blackboard. With a course management system, user name and password are required for students to gain access to the work area within the program. All e-mail, asynchronous threaded discussions, and grades are available to students around the clock through a secured site.

Methodology

The purpose of this study was to assess if teaching visual literacy skills and concepts through on-line discussions in one graduate level computer graphics class was effective.

Specific questions that guided this study were: Do on-line discussions contribute to a better understanding of visual literacy? And, do the students perceive they learn visual literacy using on-line discussions?

Background of the Class

Graduate students enrolled in a graduate level computer graphics class at one southeastern university received instruction in a blended delivery course that utilized face-to-face and online instruction, using WebCT. Individual assignments included application of visual literacy concepts learned through production of newsletters, flyers, and a team project, consisting of designing a website. Following reading assignments, students were prompted on the discussion board to discuss various visual literacy skills and concepts such as typography, figure and ground theory, gestalt theory, and technocentric qualities.

Sample

To gain better understanding of how on-line discussions may or may not contribute to a student's learning of visual literacy, observations were made of graduate students who were enrolled in a graduate class on visual communication. Some students were inservice teachers while taking this class to complete a Masters degree. This study was completed in a spring semester at a southeastern university. The class had seven students enrolled and each student was asked to respond to an on-line survey, consisting of nine questions regarding the students' understanding of visual literacy concepts through on-line discussion board prompts. Two students were randomly selected to be interviewed. Students' discussion postings were analyzed for common themes. The data are presented using pseudonyms.

Survey Design

A survey (Appendix A) was designed to assess participants' attitudes and perspectives at a particular point in time. The survey included items to explore trends in the key questions of this study. Items were grouped to address areas of literacy theory, on-line discussions as they pertain to visual literacy, and use of on-line discussions to learn visual literacy concepts. Four of the seven students responded to the survey.

Interviews

Questions for the interview were drawn from the survey questions to acquire a deeper insight into the students' perceptions of how they learned visual literacy through on-line discussions. Guiding questions (Appendix B) were asked and students led the direction of the interview.

Discussion Postings

Discussion postings were part of the class assignments and activities. The number, by type, of postings is shown in Table 1. The types of postings were as follows:

TI - Teacher instructions were posting prompts by the teacher to give direction to the discussion.

TR - Teacher reinforcement and reflection postings were those that gave encouragement and/or encouraged reflection.

SC - Student construction of knowledge included those postings where a new idea is internalized through a student's own concepts and views of the world around him/her.

SR - Student reinforcement and reflections were those postings in which students articulated learning from each other.

WC- Website creation were postings between students to give ideas and progress on the class project of creating a website.

Discussion Activity	CODE	TOTALS
Teacher Instruction	TI	7
Teacher reinforcement and reflection	TR	34
Student construction of knowledge	SC	39
Student reinforcement and reflection	SR	40
Website Creation	WC	37

Table 1

Construction of knowledge by the students was articulated in different ways. For example, in response to a prompt to identify and discuss how some computer icons are misleading or misinterpreted, Betty related the misleading computer icon to a skit that Johnny Carson or Jay Leno would perform. In her response, Joy made sense of misleading computer instructions by relating them to a set of confusing furniture assembly instructions. Some students constructed meaning of new and foreign concepts, such as the Gestalt Theory, by associating them to past difficult teaching experiences. To encourage reflectivity, the students were required to read discussion postings made by all students in the class. The preciseness of responses was self-regulated due to the knowledge that all other students would be reading their postings. Apologies for the smallest mistakes in their own postings were common, speaking of a self-consciousness not seen in correspondence between student/teacher. The students were supportive and encouraging when responding to their fellow students. The instructor's comments flowed through the discussions with encouragement and gentle directing. Teacher reinforcement, student reinforcement, and reflection seemed to contribute to community building and increased trust. There were 157 threaded discussion postings (See Table 2 for distribution of postings).

Instructor	43
Betty	15
Joy	19
Sam	15
Mark	28
Tal	12
Joe	17
Luke	8
Total	157

Table 2

Results and Discussion

The survey results were mixed in most cases. When asked if they believe the number of on-line discussion prompts were adequate in helping understand the visual literacy concepts, the answer was unanimously, yes. While the respondents perceived that visual literacy could be learned through on-line discussions, they did not perceive that the group project assignment was enhanced through on-line discussions. The respondents perceived that community was created through discussion groups and that the discussion postings prevented the feeling of isolation. Four major themes flowed through the discussions: students' interaction for website creation, students' construction of knowledge about visual literacy and its theories, students' reflection of the other students' constructs of visual literacy, and community building. The website construction was a whole class assignment that used on-line discussions for input on design and to communicate progress. The students believed that too many opposing concepts, ideas and designs were proposed with no consensus being reached. Several face-to-face meetings were required to reach a consensus. The website was completed, though it is doubtful that this could have been accomplished through on-line discussion only. Opinions were clear that the majority

of the students felt on-line discussions was a deterrent to creative applications, such as creating websites.

Graduate students in the class did perceive that using on-line discussions were effective in teaching visual literacy concepts and theory. An idea or concept that can be internalized seems to be transferable through an on-line discussion as seen through the discussion postings, surveys, and interviews. However, creation of a team product, such as a web site, that required multiple layers of visual concepts, seems to require collaboration at many levels (including face-to-face). Community building via the discussion board played a significant role in the development of visual literacy concepts by all members of the class. This closeness allowed the students to feel comfortable in sharing their ideas and how they perceived the theories presented by the instructor and others in the online, threaded discussions. Teachers are encouraged to further explore online discussion methods to teach difficult concepts in classrooms with limited time for in class discussion.

Contributors

William T. McInnish, Sr. is a retired U.S. Coast Guard aviation mechanical instructor. William received a B.S. degree at The University of the State of New York and a M.A. from the University of Alabama in Secondary Education with an emphasis in Computers and Applied Technology. William teaches technology education and computer applications classes at Pizitz Middle School in Vestavia Hills, Alabama.

Vivian H. Wright is an Assistant Professor of Instructional Technology at The University of Alabama. She works with teacher educators on innovative ways to infuse technology in the curriculum to enhance teaching and learning and has helped develop projects such as Electronic Portfolios for the Preservice Teacher, Master Technology Teacher, and Technology on Wheels.

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Appendix A

Questions	Quality Rating				
	Strongly Agree	Agree	Disagree	Strongly Disagree	Don't Know
Visual Literacy					
Students can learn a visual subject (Visual Literacy) by participation in on-line discussions about visual literacy.					
I gained a good understanding of the principles of visual literacy.					
I understand the terms used in visual literacy, examples: (Technocentric, Typographic, Hierarchy)					
On-line Discussion					
On-line discussions contributed to my understanding of Visual Literacy.					
On-line discussions contributed in building a sense of community within the class.					
I believe the number of on-line discussion prompts were adequate in helping me understanding the visual literacy concepts.					
The discussions encouraged me to consider ideas from other members of the class.					
Website					
The on-line discussions helped in the creation and organization of the website.					

Appendix B

Guiding Interview Questions

1. Did the course content and website meet your needs?
2. Which type of class better suits your needs, on-line or face-to-face?
3. How did on-line discussions help in the website assignment?
4. What do you feel the best uses of the on-line discussions were?
5. What one concept or idea did you come away with?
6. What was your feeling about the author's website?