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CREATING A STUDENT-CENTERED LEARNING COMMUNITY
IN THE COLLEGE READING CLASSROOM BY
INCORPORATING WEB-BASED TECHNOLOGY

A Project
Presented to the
Faculty of
California State University,
San Bernardino

In Partial Fulfillment
of the Requirements for the Degree
Master of Arts
in
Education:
Reading/Language Arts

by
Michael James Shefchik

March 2005

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Approved by:



Diane Brantley, First Reader

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ABSTRACT

This project investigated the problem of how to enable a student-centered environment in reading instruction through effectively incorporating meaningful Web-based technology into the community college Reading curriculum. Three multimedia strategies were tested to promote individual and collaborative meaning making: ePortfolios, wherein students construct electronic portfolios from level-appropriate vocabulary words using Boolean searches associated with a single topic of interest; eJournals, which constitute dialectic reading journals presented in digital format; the *Class Know-It-All*, which provides an asynchronous forum where students share successes and concerns about course activities and goals. The activities are posted on the course Blackboard™ site where every participant can access the information when they need it. The success of these strategies was measured against that of a previous course, which used identical materials and resources with the exception of multimedia integration.

ACKNOWLEDGMENTS

This project had but one author, but the creative and constructive energy that powered it to publication comes from many sources. I would like to thank the many students that helped to shape and substantiate the development of the project: my Reading students, from whom the inspiration and realization of the project stems; my fellow graduate students, whose feedback and support supplied needed critique and courage for the completion of the project.

My grateful thanks go to Thom Gehring, whose keen and critical editing skills added clarity and vigor to the prose presentation of the project. I owe very special thanks to Diane Brantley for sharing her confident understanding of the reading process and her compassionate dedication to learner success: she is an inspiration.

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CHAPTER ONE

BACKGROUND

Introduction

Reading education has changed dramatically over the past century. Synthetic and analytic phonics dominated Reading instruction during the first half of the twentieth century. The 1960s initiated a heightened focus on phonics as well as an emphasis on decoding, which largely dictated instructional design and practice through the 1970s. A paradigm shift began in the 1980s favoring the development of student-centered learning environments and practices. Schema formation (Anderson & Pearson, 1984), transactional theory (Rosenblatt, 1978), scaffolding (Vygotsky, 1978; Bruner, 1983), holistic learning (Calkins, 1983; Cambourne, 1988), and whole language (Strickland, 1995) approaches to instruction have sought to place the student at the heart of the educational experience (Vogt & Shearer, 2003, pp. 10-25).

However, no single system seems more productive of student success than the next. In fact, there is sparse evidence to indicate whether Reading specialists have any impact on a school's reading achievement whatsoever (Vogt &

Shearer, 2003). Thus the field is self-consciously redefining its role with the purpose of providing effective Reading instruction to respond to the needs of a changing society. Reading specialists' roles have greatly expanded to support emergent practices in Reading instruction and to help define the practices and theories that inform effective Reading education. The sociocultural (Vogt & Shearer, 2003) and sociopsycholinguistic (Smith, 1997; Weaver, 2002) methods are two emergent approaches to Reading instruction that emphasize student meaning making based upon individual experience and personal need.

The sociopsycholinguistic model of Reading instruction is predicated on the following key theoretical foundations. Meaning is socially constructed through an interactive exchange of ideas; thus it is a sociopsycholinguistic process. Learners construct meaning from texts with the experiential tools they bring to the encounter, which places the student at the center of the learning experience. Through mediated scaffolding of requisite skills, instructors can advance autonomous student learning and promote independent learning in Reading education.

Purpose of the Project

This project explored meaningful ways of incorporating Web-based technology into the college Reading curriculum to create a student-centered learning community. The primary purpose of the project focused on enabling students to master individualized college level vocabulary within personally meaningful contexts, determined by student-initiated topics of interest. Thus the ePortfolio was developed. Dialectic eJournals were used to broaden the scope of individual student understanding of course reading materials within a communal forum of exemplary idea exchange. To support the online learning environment and foster student attainment of course objectives through collaboration, an asynchronous discussion platform was constructed, the *Class Know-It-All*.

Projected concomitant benefits of the project included promoting awareness for Web-based learning techniques and research methodology. Furthermore, it was anticipated that students would accumulate additional topic-specific terminology in the process of researching particular vocabulary words. The ability to conduct research on a topic of personal import predicted a heightened awareness of purpose and motivation for individualized learning.

Questions

In answer to the need for meaningful ways of effectively incorporating Web-based technology into the college Reading curriculum and supporting collaborative learning, this project examines the following issues: What Web-based technology best supports meaningful learning at the developmental reading level? How can learners individualize instruction within a heterogeneous learning environment? How might learners support one another's diverse objectives toward attainment of common course goals?

Significance of the Project

The importance of incorporating Web-based technology into the college curriculum has never been more keenly felt than now. Within the next few years, the need to meaningfully infuse instruction with technology will be imperative, since by that time practically every student will have developed in a digital learning environment. In part, this project seeks to stem the tide of digital divide by exploring ways that college Reading instructors can incorporate Web-based technology into the learning experience. More pointedly, it investigates practical modes

of providing personally meaningful methods of accumulating vocabulary for retention beyond the immediate learning situation. Thus this project aspires to afford learners a particularized educational experience within the socially extended environments of face-to-face and virtual interaction.

Limitations

The only foreseeable constraints to this study are those of technology access. Student accessibility to the Internet resources off campus may prove a limitation to convenient participation. Furthermore, certain Internet service providers (ISPs) utilize proprietary protocols which limit interaction with Web-based course management software programs such as Blackboard™ and WebCT™. On campus availability of Web resources for collaborative learning, for the benefit of whole-class instruction, may prove restrictive because of limited campus computer resources.

Definition of Terms

The following definitions apply for this study:

Andragogy: As opposed to pedagogy, which deals with teaching children, andragogy pertains to the art or profession of educating adults.

Authentic Assessment: Assessment aimed at gauging understanding relative to the learning experience and the mode of learning.

Class Know-It-All: An asynchronous discussion forum wherein students are enabled to discuss any concerns, questions or comments they might have, and to respond to those presented by their classmates. It operates on this assumption: As individuals, we each have quite a store of knowledge, but our scope is limited to our individual experience. As a class, we possess a storehouse of knowledge—all we need know to seek further understanding. In short, we, as a class, know it all.

eJournal: Dialectic journal engaging fiction and non-fiction reading materials posted electronically and hosted on a Web space.

ePortfolio: Student-generated materials amassed in an electronic collection and hosted on a Web space.

Sociopsycholinguistics: The process of socially constructing meaning from language drawing on individual perceptions of semantic connotations based upon experiential understanding.

Hotlist: A Web-researched list of information that is arranged by categories of interest.

CHAPTER TWO

REVIEW OF THE LITERATURE

Introduction

Reading is essentially the act of apprehending the published thoughts of another through some form of sensual intake of information, which for the majority of readers and the purposes of this discussion entails visual perception, and it is principally the process of deriving meaning from the experience. In order to mentally grasp and understand these printed thoughts, the reader must comprehend more than the relationship of the sound to the word or the individual word to those around it in the sentence.

Goodman (2003) exposed several fallacies concerning the relationship of the word, offered individually or collectively, to the meaning conveyed through a focus upon that word. Contentiously but cogently he provided sound reasoning for his deposition of the word as almighty ruler of meaning in favor of supplanting the rightful heir to the dais of meaning, meaning itself. Two basic premises provide a basis for his argument: words do not exist apart from language; "errors" in reading facilitate reader control

over the learning situation, as they constitute valid, though errant interpretations of individual words based on intuitive textual understanding of projected meaning.

That words form the basis for constructing language and gaining meaning from its expression is a given; centuries of theory and practice have been built upon this seemingly self-evident belief. Goodman (2003) iconoclastically challenged this conception: "If words are extracted from the flow of language, all or most of these cue systems [morphemes, intonation, inflection, and key function words] are eliminated" (p. 210). Meaning does not exist in a vacuum of isolated codes.

Meaning, like anything else that bears the stamp of user identification, is naturally constructed according to individual necessity and awareness of intended use. How a learner adopts language not only corresponds to individual need and experience but also empowers the learner to succeed based on experiential need. The premise that "Each miscue is considered on all variables that are pertinent, and no attempt is made to establish a single cause-effect relationship" (Goodman, 2003, p. 110) is valuable at all levels of understanding the reading process and those who process reading.

That deviation constitutes desirable development is an outwardly twisted piece of logic that only a postmodernist might be expected to appreciate. Yet it warrants its place in contemporary education, as it invests the learner with an individual capacity to apprehend meaning in a mode that is personally valid, and promotes perspectival authority. Perception and prediction are codependently intertwined: "The reason we can follow a familiar language or dialect more easily than an unfamiliar one is that we are constantly able to anticipate the perceptual input" (Goodman, 2003, p. 210).

Reading entails making meaning of the text within the larger context of the author's meaning by the process of viewing it through the lens of reader experience. As Smith (1997) argued, "It is not in print that the meaning of written language lies. Readers must bring meaning *to* print rather than expect to receive meaning *from* it" (p. 58). Reading, then, is the active process of constructing meaning with the textual materials provided by the author using the semantic tools brought by the reader; thus it is a sociopsycholinguistic process which coalesces the reader's life experiences, thoughts, and knowledge of language to produce meaning.

In order for the reader to construct meaning from the text, he or she has to first make sense of the words using some sort of language cues and reading strategies. The three major cueing systems—phonemic, syntactic, semantic—are used to enable understanding of the pronunciation, definition, and meaning of individual letter sounds, words, and sentences. Each has its particular purpose and practical place in Reading instruction and work together to promote reading comprehension; however, an emphasis on semantics helps the reader to construct meaning from a multiplicity of sources, textual and experiential, since it asks the reader to make sense of the information, not merely to comprehend its parts.

In making sense of what we read, "We use not only the syntactic and semantic cues available in the text and the situation, but also our entire experience with language and with life" (Weaver, 2002, p. 52). This focus on "entire experience" exemplifies the sociopsycholinguistic model of instruction by emphasizing the importance of holistic understanding over that of particular skills mastery. The result is a more cohesive understanding of the reading material and the reader's role in participating in the discussion.

Focus on particular sounds and sound relationships may be valuable when learning to pronounce unfamiliar words which follow regular phonological patterns, but in discovering their individual and collective meanings the practice is useless. In fact, Smith (1997) explicitly asserted that there is only one condition under which phonics is useful: "Phonics works if you know what a word is likely to be in the first place" (p. 47), which renders it sociopsycholinguistically dependent, since it relies on experiential foreknowledge of the word to aid in learning how to pronounce it.

Student-Centered Learning

Students learn best if they have a genuine interest in what they are learning and have ownership of the learning situation. The implications for Reading education are that each learner be involved in the process through personal investment in the vocabulary and choice of the reading material. Reading workshops create a classroom environment wherein learners have a valid voice in their individual learning experiences: "...whether their decision be choosing their own books and topics for writing, sharing their ideas with peers, or helping shape curricular units"

(Weaver, 2002, p. 279). To foster the bond with reading beyond the classroom, simple tools such as bookmarks and book bags serve to remind readers of their investment in reading and promote a lasting relationship with books, which ideally places them on the path to becoming lifelong readers (Calkins, 2001, pp. 20 & 70-71).

Honoring Diversity

Ownership of the learning situation honors and promotes diversity by allowing each learner to insert his or her own sociocultural voice through a curriculum based on individual student choice (Dillard & Blue, 2000). Students are encouraged to explore their individual roles as learners in the cultural context of the classroom based upon their individual sociocultural awareness and understanding. The "six facets of understanding" Wiggins and McTighe (1998) advance—explanation, interpretation, application, perspective, empathy, self-knowledge—provide the means and motivation for self-exploration and student determination of a sociopsycholinguistic application for the personal reading experience.

Rewards

When students explore and apply information in personally meaningful ways, they are rewarded with a

motivation for learning. Instructors externally motivate students by engaging them in learning activities that emphasize dynamic elements of individual meaning making: active, constructive, intentional, authentic, cooperative (Jonassen, Peck & Wilson, 1999). Reward for incremental successes in making meaning is supplied by students through ongoing self-monitoring and peer review feedback, provided through reflective journal writing and reading and writing workshops. The instructor's role in rewarding learner behavior is best facilitated through enabling these means as a moderator, whereby students are guided to supply self-assessment in response to the outcomes of published course goals and personal growth expectations.

Praise should be used sparingly and pointedly by instructors in informal or formal assessment, and then only to enable self-commendation by the student. Words of praise such as "good" and "nice" are meaningless in themselves, and students often recognize their indiscriminate use as an empty gesture intended to dismiss them or their efforts with a smile. Authentic feedback, that which is grounded in the learning experience, addresses the activity in which the student is engaged and builds upon recognized misunderstandings and successes to forward understanding of

the concepts involved (Wiggins, 1998). Students are thus guided by the instructor to apply merited self-reward or -critique for the purpose of bettering their understanding of the learning situation.

The Role of the Teacher

Teachers function most effectively in facilitating student-centered learning if they initiate behaviors in the role of a learning guide. Learners benefit from instructor-guided exploration of meaningful concepts that are relevant to personal interests and growth. When teachers guide student growth with the personal experiences and development of the learner in mind, they efficiently function as sociopsycholinguistic facilitators of learning. Their power to guide the learner in exploration empowers the learner with a purpose to construct meaning from the experience, meaning that is personally valid and valuable. Thus through a shifting of power from instructor to student, the teacher initiates an actively constructive behavior from the student, one that encourages independent exploration and lifelong engagement with learning.

The Sociopsycholinguistic Model

The sociopsycholinguistic model of Reading instruction emphasizes the most important component of the learning enterprise—the learner. It constitutes the universal basis for thought and concerns that support teacher effectiveness: to enable lifelong learning by providing the student with the metacognitive tools requisite to autodidacticism. Meaning is not contained in the sounds or spelling of an individual word or sentence, nor is it to be found in the vocal utterance or written expression of an individual. Meaning is co-constructed by the reader using the text and the knowledge the reader brings to the reading experience (Weaver, 2002, p. 23).

Sociopsycholinguistics supports individual meaning making and fosters independent knowledge construction by emphasizing the cooperative relationship between reader and text. It amounts to the difference between giving someone a fish and teaching that person how to fish: the fish is analogous to the text, and the act of fishing and the tools used to accomplish it—pole, line, hook, and bait—represent the act of reading and the critical devices used to catch the overarching meaning.

These semiotic sensibilities and strategies support the reader in individual meaning making by encouraging a metacognitive view of the totality of constructed connotation as separate from but stratified by its constituent parts of individual letters, words, phrases, and sentences. When a student engages learning in this manner, the requisite critical thinking apparatuses for autodidactic authority are established. By this means, the student is encouraged to autonomy as a lifelong learner.

Smith (1997) supports the sociopsycholinguistic model of Reading instruction by advocating a context-created ownership of understanding based upon co-construction of meaning between the text and the reader. He emphasized that meaning is discovered through understanding the entirety of the material as revealed through engagement with the text in light of the reader's prior reading knowledge and life experience (p. 58). The presentation of the printed word provides a "surface structure" of visual information that, in itself, does not provide meaning to the reader. Meaning, or "deep structure," is created only incidentally from the surface structure of the text, using it as the method of conveyance. Deep structure is creatively constructed using

complex methods of comprehension provided by the reader (Smith, 1997, p. 59).

Reading is a skill that relies upon the mind to find meaning. Smith (1997) emphasized that the reader should "depend upon the eyes as little as possible" (p. 10). The eyes focus on minute details detached from the larger context, which can lead to a disconnected understanding of the material and a fragmented awareness of the ideas involved.

Struggling Reading students tend to focus too much on the individual word, and thereby stumble on the way to a holistic understanding of the reading. However, when students reach for the larger context and try to see the "big picture," they have a tendency to rely on their confidence as a reader and a mature thinker and not become frustrated so easily by uncertainty of individual words. Smith (1997) summed up this sociopsycholinguistic sentiment well:

Nonvisual information is critically important in reading because meaning is not directly represented in the *surface structure* of language, in the sounds of speech or in the visible marks of writing. Readers must bring meaning—*deep*

structure—to what they read, employing their prior knowledge of the topic and of the language of the text. (p. 63)

Incorporating Web-Based Technology

The use of Web-based technology in the academic curriculum has gained prominence over the last ten years. Instructors have been anxiously exploring the potential value of the World Wide Web in instruction, but mainly at the K-12 level; little is being done to fully utilize the Web within the community college curriculum (Deal, 1998; Seamon, 2001). The reasons for this are as diverse as individual teaching styles and experiences; however, studies indicate the primary factor for not using Web-based technology at the post-secondary level appears to be a lack of understanding about how to develop, integrate, and assess these materials. Therefore, the Web is generally viewed solely as a tool for solemn, academic research. The tremendous ability to make learning interesting and interactively enjoyable using this vital, contemporary medium is largely ignored by college instructors.

Since the Internet came to prominence in the middle of the 1990s, instructors at all levels of interaction have

sought to harness the great potential of this medium and to use it as an integral component of instructional design. Countless articles have been written concerning the practice and practicality of Web-based instruction. Studies have investigated the need for greater involvement by both students and teachers in this burgeoning field. Yet few inroads have been made into the development of effective Web-based instructional tools for use at the community college level, much less within the Reading and Language Arts curriculum. A gap exists between the use of these Web resources at the K-12 educational rank and the 13-14 level of instruction—the community college.

An extensive search of academic databases—ERIC, EBSCOHOST, Wilson Omnifile—revealed very few studies on the integration of Web-based learning into the Reading curriculum. Only one (Deal, 1998) was found that specifically addressed the community college Language Arts curriculum. Using existing research as a starting point, this project will discuss current trends and theory in the use of Web-based learning tools. In doing so, it will cover a representative range of Web-based instructional tools available or adaptable for use within the community college Reading and Language Arts curriculum. The examples are

scaffolded to reflect the step sizes of curricular design, and each includes a discussion of potential strategies.

Seamon (2001) acknowledged the great potential for using Web-based technology in the classroom, but bemoaned the gap between available resources and instructional practice. Many instructors are unsure of what is available, how to incorporate it effectively into the curriculum, and how to authentically assess its use in and out of the classroom. Seamon went on to note that the following criteria must be observed by instructors for an intelligent integration of technology to be implemented:

To be successful, a technology program for teachers must contain two major elements. First, the technology instruction must be relevant, that is, directly related to what the teacher is teaching in the classroom. The professional development and how it is organized must make the connection between the classroom and technology. Second, a clearly delineated scope and sequence must scaffold the adult learning from simple to more complex. (p. 45)

The idea is that the technology should align with the curriculum and that it should progress commensurate with

student development. For this reason Seamon (2001) suggested scaffolding along the order of a progression from simpler tasks such as eJournaling to the higher level activities like constructing an ePortfolio (p. 45).

The gap between availability and implementation has been recognized since the beginning of the Internet revolution. Deal (1998) noted a startling division between student awareness and instructor ability in using the Web after a year-long absence from the United States during 1995. After a study of student attitudes regarding Internet use, Deal concluded that 24 out of 25 college students felt it was an essential element to their success as students and future educators. Seventy-five percent of students anticipated using the Internet particularly and technology in general, as an integral part of their professional and personal development. The attitude of students toward their current instructors showed a distinct divide, however. The study indicated that an overwhelming number of students noted the ability of their instructors to use the Internet for personal productivity but a lack of enthusiasm to integrate it into the curriculum.

Enthusiasm is the key to integration. Students and instructors alike must share an interest in innovation.

Carnevale and Young (2000) noted the need to "enliven" online instruction to encourage participation and, ultimately, achieve course goals. As a success story supporting this contention, they cited the case of Ms. Roeger, an instructor at Shawnee Community College, in Ullin, IL:

[Roeger] uses several tricks to keep her various classes interesting: Students solve mysteries in critical-thinking courses and participate in punctuation wars in English courses. They collaborate in competitions so they'll get to know each other, and they embark on Web scavenger hunts so they'll know what resources are available to them. (p. A55)

Whether the motivation is competitive or collaborative, the Internet provides a broad range of tools to promote student-to-student and student-to-instructor interactivity (Shefchik, 2003).

As Lindroth (1998) reported, there is no need to develop a Web-based curriculum from scratch, especially for the fledgling technologist. Much is already available on the Web to augment the course curriculum. Modified to align with specific course materials, objectives, and outcomes,

available materials can be adapted easily from the K-12 stage of application to a community college level of adoption.

Summary

Personally constructing knowledge in a collaborative environment promotes a sociopsycholinguistic method of student meaning making. Web-based technology provides an engaging, interactive, and enabling setting in which students are encouraged to pursue individual goals while sharing concerns, successes, and models of performance in an always-accessible classroom atmosphere. With a modicum of invention and a moderate amount of adaptation, even a novice technologist can imaginatively construct a virtual environment to aid in creating a student-centered learning community in the college Reading classroom by incorporating Web-based technology.

CHAPTER THREE

DESIGN

Introduction

This project was designed with the technologically aware Reading student in mind, to foster student-centered understanding of reading vocabulary using entry-level computer skills. The need for approachable instructional technology (IT) materials precipitated a design that was at once nurturing and challenging to the student. Existent literacy in computers, however modest, was employed to encourage emerging Reading literacy through independent exploration based upon individual need and experience.

Analysis

Students need to see a personally applicable point to what they are learning in order to truly succeed in the endeavor. When learning vocabulary words that hold no personal meaning and are not viable in everyday conversation, students tend to memorize for the sake of evaluation instead of internalize for the purpose of application. It stands to reason: if there is a need for an item, we tend to hold on to it for projected later use; if the item is perceived as useless, we let it go to make room

for useful items. The need exists for a means of allowing learners to make the vocabulary they learn part of their daily repertoire of words, words they "own" and can carry with them.

Design

A well-constructed instructional design for incorporating Web-based technology into the community college Reading and Language Arts curriculum matches instructional needs to the desired outcomes. Critical thinking and reading comprehension are typical examples of fundamental Reading course exit skills. Building upon developmental need and accessibility, the curriculum should match the awareness of the class as a whole. This can be difficult to anticipate in a semi-individualized learning environment, but it is especially necessary when working with collaborative activities. Students need to be nurtured in their understanding of concepts covered as well as the physical environment used to master them.

Hotlists provide a means of personalizing the Reading education experience by enabling students to tailor instructional materials to fit their individual form and functions, and thereby suit their particular situations.

Hotlists can be generated using online software provided free of charge by Filamentality™, the originators of the hotlist, or they can be produced independently by copying and pasting information from the Internet onto a Webpage document.

Students research the vocabulary word of the day in a context that is personally meaningful to their interests. For instance, if a student is interested in nursing as a career, and is perhaps enrolled in the Nursing Program, he or she might research a meaning for a particular word within the context of the medical profession. For example, if the word of the day was "emit," the student would conduct a Boolean search using the query "emit and nursing." From the numerous results found, the student chooses the one that best suits his or her particular, personal interest or career focus.

The result of the search is then copied in a whole sentence context from the source and pasted into a Web-compatible word processing program such as Microsoft Word™. Students paraphrase the sentence and place it into comfortable terminology of their own authorship. Through the process of personal selection and personalized rephrasing, the word of choice, as well as any other

encountered in the procedure, becomes the personal property of the student.

Students paste the paraphrased sentence along with the original onto their own personal Web space, housed on the course Blackboard™ (Bb) site. Each entry is prefaced by the researched word in boldface print, followed by a brief definition in the students' own words. Next comes the research findings for the word presented in italicized print, to remind the researcher and those who may visit the Webpage that the material is borrowed. Finally the student places the paraphrased sentence beneath the original, which provides for a visual representation of the adoption process involved in making the word his or her very own property.

Scaffolding of requisite skills is planned in advance using a "backward design" (Wiggins & McTighe, 1998) method of curricular planning to ensure contemporaneous student understanding of immediately relative skills needed: using search engines, conducting Boolean searches, effective search techniques, copying and pasting, logging onto Bb, creating a Web presence on Bb, paraphrasing another's words, avoiding plagiarism. The student receives the information just at the point of need, provided through

class discussion, PowerPoint™ presentation, and modeling of procedures and practices specific to the activity. Thus the student is pointedly guided in a personal exploration of vocabulary in meaningful contexts while discovering more about his or her special interests in the process.

Development

This project was developed as a virtual supplement to face-to-face learning using Blackboard™ as the course Web resource. Student submission of eJournals and ePortfolios was facilitated using the "Discussion" area of the site. Weekly eJournal prompts were posted concerning a given topic regarding the course reading, *Holes*. Participants were enabled to read and then respond to each other's writings using the "Reply" function of the discussion forum. In likewise fashion, students were able to read and respond to classmate's ePortfolios in progress, as each class member had a personal ePortfolio space on the discussion board, denoting his or her topic of interest and purpose of choice.

Student recourse to course resources was provided using multiple functions of the Blackboard™ site. Student access to formal assessment results--test scores, eJournal

grades, ePortfolio achievement--was enabled through the "Grades" function of the "Student Tools" area of the site. Course updates and bulletins were presented using the "Announcements" board of the site.

Collaboration and interactive support were enabled using the *Class Know-It-All*, a threaded discussion forum on the site course Blackboard™ modeled after the *Virtual Expert* (Evard, 2002). Intended as a peer support provision, this forum provided a non-threatening student discussion arena supportive of individual learning styles.

Accommodating both hard- and soft-mastery of skills, top down and bottom up approaches to learning, these Web-based collaborative tools were designed to accommodate traditionally masculine and feminine modes of learning, viewed, respectively, in terms of quantitative and qualitative comfortableness (Shefchik, 2004, p. 336).

Implementation

The study was completed during spring semester 2004 at Victor Valley Community College. The sample population was composed of a Reading Improvement course with an initial enrollment of eighteen students. Students were assumed to have a minimum of computer skills--basic keyboarding,

essential operating knowledge, word processing skills--and specific learning objectives were scaffolded from this knowledge base.

Students were incrementally initiated into the digital environment of the course using PowerPoint™ presentations and accompanying handouts, lecture and discussion on pertinent topics, and three visits to a campus computer facility--during the fourth, ninth and fifteenth week of instruction.

Evaluation

Evaluation was performed throughout the development of the project to determine utility and usability. The project was piloted in the academic environment of graduate courses in Reading Education, which provided productive feedback toward design and implementation refinement. Needs analyses conducted within the graduate learning environment and on the Victor Valley College campus supplied useful insight into the concerns and considerations of Reading instruction, and the general reading needs of a multidisciplinary milieu. Ongoing evaluation of project effectiveness was facilitated through test results, student comment, and instructor observation in the physical environments of the classroom and the computer facility, as

well as the virtual environment of the course Blackboard™ site.

Formative evaluations of student progress enabled minor adjustments to the project to better suit multifarious learner needs. Although minor structural modifications, these tweaks in implementation allowed for a fine tuning of processes that enabled the students to form fit the environment to their collective need. This perceived empowerment on the part of the student had an unanticipated two-fold benefit: the students felt that they were in control of their individual learning experiences; they were thereby encouraged by a metacognitive view of the learning process to proceed to a heightened level of autodidactic authority.

Summative evaluation of student performance proved the project successful. Average vocabulary test scores increased by 7% as measured by those of a previous course this instructor taught in the fall of 2003, which used identical materials and resources with the exception of multimedia integration. While this appears a modest gain, a truer indication of the value of the project was manifested through examination of student interaction with the electronic environment.

Among those students whose ePortfolios were most elaborate and up-to-date, an individual increase in vocabulary test scores of 26% above the fall 2003 class average was realized. These students were coincidentally most active on the course Blackboard™ site, using the *Class Know-It-All* frequently and posting thoughtful eJournals regularly. The incorporation of Web-based technology proved a beneficial learning aid to those who exploited its potential most fully.

Summary

Creating a student-centered learning community in the college Reading classroom by incorporating Web-based technology is a practical approach to assist students in personalizing the learning experience. Results indicated it was a practice productive of enhanced student understanding, culminating in independent student meaning making based on individual choice. Student involvement in the process and practice of the project proved an unanticipated boon, as each was thereby invested with a personal interest in the outcome of not only individual progress but the advancement of the project as a whole.

CHAPTER FOUR

CONCLUSIONS AND RECOMMENDATIONS

Introduction

The project to effectively incorporate Web-based technology into the community college Reading and Language Arts curriculum provided a valuable student-centered learning experience. Enthusiastic students appreciated the opportunity to research personal interests and share their thoughts with fellow learners, while they shared in the immediate decision-making process of shaping the curriculum to fit their collective and individual needs. Initially reluctant students, those with technophobic tendencies and educational apprehensiveness, were encouraged to integration through the collaborative and cooperative environment of the course Website, most notably the *Class Know-It-All*. All Reading students benefited from the text-driven communicational medium of the virtual classroom environment, as it reinforced the practice and process of purposeful reading.

Further studies may provide information on how instructors effectively incorporate technology using Web resources, as well as the effectiveness of the activities

generated through their use at helping students achieve understanding.

Conclusions

The project successfully achieved the desired goals. It showed Web-based technology can provide a learning environment that supports student-centered learning.

1. There is need and desire for increased technology integration at the community college level of Reading instruction.
2. Web-based technology provides an effective means of initiating technology integration into the community college Reading curriculum and promoting a student-centered learning community.
3. Web-based technology promotes independent meaning making and autodidactic authority among enthusiastic students and encourages general participation through collaboration.
4. Web-based technology propitiates technophobia and educational apprehensiveness through supportive, accessible collaboration.
5. Web-based technology proliferates collaboration by affording a universally accessible platform

for intellectual interaction, allowing a socially-constructed knowledge of the reading process: vocabulary development, dialectic interaction with texts, sharing understanding of texts with others.

Recommendations

Further research needs to be done to determine usability and effectiveness of Web-based technology in the community college Reading curriculum.

1. Qualitative testing should be performed to verify usability of design.
2. The effectiveness of incorporating technology into the learning environment to foster student success should be studied.
3. Consequent student benefits—understanding of research techniques, metacognitive empowerment, curricular coauthorship—should be explored and evaluated.

Summary

The project achieved its educational goal of providing a tool for the effective integration of technology into the targeted discipline and level of instruction. It showed

that Web-based technology enhances andragogical practices and promotes collaborative involvement. However, further inquiry is necessary to determine the ultimate utility and usability of Web-based instruction in the college Reading classroom and the use of Web-based collaboration in creating a student-centered learning community.

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