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EFFECTIVELY INCORPORATING WEB TOOLS INTO THE
COMMUNITY COLLEGE COMPOSITION CURRICULUM

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:
Instructional Technology

by
Michael James Shefchik

June 2003

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ABSTRACT

This project showed how Web tools could be effectively integrated into the community college composition curriculum through staff development. It stressed the need for adaptation of materials designed for K-12 education to the 13-14 grade level application and the development of grade-appropriate materials using available Web resources. The need for authentic assessment was explored and the means to provide it were supplied. Examples of Web tools, sites for developing Web tools, and resources for accessing and applying authentic assessment tools were given.

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CHAPTER ONE

BACKGROUND

Introduction

The use of Web tools 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 tools 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 enjoyable using this vital, contemporary medium is largely ignored by college instructors.

Statement of the Problem

This project investigated the problem of how to effectively incorporate Web tools into the community

college composition curriculum using models developed for K-12 instruction. With a new wave of tech-savvy students ready to hit the community colleges, students who have been raised using computers, the challenge of incorporating meaningful digital technology into the composition curriculum has never been more critical. Fortunately, there is no need to reinvent the wheel: much exists in the way of Web tools that can be readily adapted for use in grades 13-14. Far from posing a problem, this challenge allows for a fresh approach to what is an already established means of instruction.

Purpose of the Project

This project investigated meaningful ways of effectively incorporating technology into the community college composition curriculum through staff development in the use of Web tools. The objective of making the learning experience meaningful to students, or investing them with the power to make meaning from the experience, is undoubtedly a worthwhile endeavor. The goal of incorporating this experience effectively into the curriculum is likewise a lofty objective. But the question, one might ask is "How can I get started using

Web resources in the classroom without investing countless hours in research and risking getting 'caught in the Web'?" Furthermore, "How can we tell if we, as instructors, have been effective at making this a meaningful experience?" Staff development in the use of Web tools and how to authentically assess the outcome of the learning experience provides an answer.

Questions

In answer to the need for meaningful ways of effectively integrating Web technology into the community college composition curriculum, this project will examine the following: What Web tools contribute to meaningful learning? Which of the tools currently available can be effectively adapted for use within the community college composition curriculum? How do we authentically assess if meaning making is indeed taking place? How can we make instructors aware of what resources are available for integrating Web tools into the composition curriculum?

Significance of the Project

The importance of integrating technology into the college curriculum has never been more keenly felt than now. Within the next few years, the need to meaningfully

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

Citation Machine: Online utility software used to generate works cited and reference pages in MLA and APA style formats.

CyberQuest: A cooperative learning activity in which participants adopt a role-play scenario with the specific goal of enhancing English teachers' interaction with Web-based instruction (Deal, 1999).

Hotlist: A Webpage that collects links to sites pertinent to an area of instructional investigation.

Scrapbook: A multimedia collection of Internet sites organized around specific categories such as photographs, maps, stories, facts, quotations, sound clips, videos, virtual reality tours, etc. (*Filamentality*).

Treasure Hunt: This entails the search for webpages that hold information (text, graphic, sound, video, etc.) that the instructor and students feel are essential to understanding a given topic (*Filamentality*).

WebQuest: Bernie Dodge, the father of the WebQuest, defined it as an inquiry-oriented activity in which some

or all of the information that learners interact with comes from resources on the Internet (Braun, 2001).

Web Tools: Any of a variety of computer-generated learning tools created for use on the World Wide Web. Their defining characteristic is that they foster student-actualized learning, and they most always require a high level of Internet interactivity on the part of the student and the instructor.

Web Trip: A Web Trip is a customized, guided research activity that teachers create for their students to complete online (Brazburg, 2001).

Web Worksheet: Online utility software used to post instructor Web pages.

CHAPTER TWO
REVIEW OF THE LITERATURE

Introduction

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 use it to help draft the load 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 tools for use at the community college level, much less within the composition 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.

The Need for Technology Integration

An extensive search of academic databases—ERIC, EBSCOHOST, Wilson Omnifile—revealed very few studies on the integration of Web-based learning into the curriculum; only one (Deal, 1998) was found that

specifically addressed the community college composition 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 tools available or adaptable for use within the community college composition curriculum. The examples are scaffolded to reflect the step sizes of curricular design, and each includes a discussion of potential processes for usage.

Uses for Web Tools

Providing the Potential

Seamon (2001) acknowledged the great potential for using Web-based tools 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 usage 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 a Scavenger Hunt to the higher level form of the WebQuest (p. 45).

Using What Is Available

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

[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 be competitive or collaborative, the Internet provides broad range of tools to promote student-to-student and student-to-instructor interactivity.

Available Resources

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. Since 1998 the range of available materials has expanded exponentially. The following is a sampling of some of the tools available on the Web that can be used or adapted to suit the needs of the community college composition curriculum.

Schrock (2003) provided an up-to-date list of online tools for educators and students alike that can be accessed by searching the site names: Calendar Server; Discovery School: Puzzlemaker, Filamentality, McGraw-Hill Learning Network, Personal Educational Press, RubiStar, TrackStar, Citation Machine, Create-a-Graph, Web Worksheet/Project Poster. Most of these sites offer free service to educators. Each contains tools adaptable to the community college composition curriculum, many of which will be discussed below.

Incorporating Web Tools into the Curriculum

Introduction

Beginning with lower-level, recognition-based learning and leading toward higher-echelon critical thinking awareness, there are a number of Web tools that are easily adapted to the community college composition curriculum. Lindroth (2001) praised the potential to share instructional planning, to email results, and to password protect information on many of the sites mentioned above. Every software program discussed features fill-in-the-blank ease of use, to simplify activity construction for the Web tool trainee.

(Note: appended examples are embellished with font and graphics not supported by the hosting sites; otherwise, they adhere to guidelines and processes espoused by the sites' authors.)

Beginning Activities

Discovery School's Puzzlemaker furnishes templates for generating a variety of puzzle types, which provide varying degrees of difficulty and levels of applicability. Word-search puzzles provide an entertaining and enlightening means of introducing vocabulary, topic, and spelling words. "Hot on the Trail of Huckleberry Finn" (APPENDIX A) presents an example of exploring issues and topics of discussion by searching for key words. This activity was created as a homework activity and can be assigned either as regular or extra credit work. Upon completion, the puzzles are exchanged and corrected in class, exposing each word to discussion. Assessment is made to align with the course rubric for homework activities: percentage correct, determined by dividing the number of correct responses by total number of words.

Double puzzles supply effective decoding and critical thinking activities that also can be used to

expose topics, vocabulary, and spelling words. Their intricate demands challenge learners to investigate, while they provide intriguing, intellectual entertainment. The example, "Seeking the Source" (APPENDIX A), gives an instance of using a double puzzle to reveal topics related to research: the learner must decode the scrambled clues to discover various resources available to the researcher. The puzzle is assessed using the same means as the word search puzzle, as is the criss-cross puzzle.

Criss-cross puzzles are essentially scaled-down versions of crossword puzzles, and they entail the same critical thinking approach to problem solving. For this reason, they work well as deductive reasoning quizzes. "Looking for Alice in Wonderland" (APPENDIX A) provides an example of an activity that exposes learners to topics and issues in the novel through investigation; students must deduce the subject matter working with clues drawn from the reading. Criss-cross puzzles can be adapted to a myriad of identification applications from vocabulary to skills mastery.

Intermediate Activities

Continuing on to research-centered activities, Citation Machine affords an effective way to introduce students to citing sources on the Web. As shown in the example (APPENDIX A), works cited and reference pages may be generated using a simple fill-in-the-blank template. Citations are generated in both MLA and APA formats, and cover basic print and electronic modes of documentation. Though by no means comprehensive, the program serves as an effective introduction to the process of source documentation.

Filamentality provides the possibility of generating and even posting projects on the Web. Brazburg (2001) presented two incrementally developmental means of easing students into Internet research; both are fostered through Filamentality: "A simple way to organize Internet research for your students is by using a hotlist—essentially a list of sites all related to a single topic of study" (p. 22). "Seeking Alice" (APPENDIX A) supplies a sample of an instructor-generated Hotlist to discover the historical Alice. It serves both as a model and a starting point for student-actuated research.

Filamentality also supports generating Scrapbooks, which—like Hotlists—foster students in gathering data pertinent to a particular area of interest. A Scrapbook and a Hotlist are identical in form and function; the difference is that Hotlists concern text-based inquiry, and Scrapbooks focus on multimedia sources of information.

In the example "Looking for Huck Finn" (APPENDIX A), the task of amassing a Scrapbook is clearly delineated for the beginning researcher. Concise directions are given for copying and editing text and images, and suggestions for presenting them are provided.

Assessment techniques for evaluating student-generated Hotlists and Scrapbooks largely depend on the means in which they are presented, and the instructional goal of the activity. Regardless of the curricular focus, the sources presented should be evaluated on content, context, cohesiveness, and credibility—as justified by the student.

Instructors and students alike may post class assignments in a matter of minutes using Web Worksheet and Project Poster, a free service provided on the SCRTEC server. "On the Trail of Alice" (APPENDIX A) exemplifies

a Web Worksheet created in less than an hour to post a Hotlist activity. Assessment techniques reflect criteria for evaluating multimedia presentations, available through RubiStar, and those used for Hotlists and Scrapbooks.

Advanced Activities

Slightly sophisticated search techniques can be revealed through more advanced applications. A Web Trip, which can easily be constructed using Web Trip Maker, provides a semi-structured Web-search outing for the beginning researcher. A Web Trip is basically an online research quiz that fosters students' knowledge of Internet searching techniques and protocols, while addressing areas of curricular interest. "Searching for Alice" (APPENDIX A) presents the learner with a five question Internet quiz, with the appropriate resource URL directly beneath each question. Upon completion of the quiz, the student is asked to synthesize the newly-gained information into a brief comparison paper.

A Treasure Hunt, also available through Filamentality, provides a structured, self-initiated research activity for the student. As Brazburg (2001) noted, "[They] are more structured than hotlists, and can

sometimes be more appropriate for younger students who need additional guidance" (p. 22). The advantage to this type of research activity, however, is that it can be scaled to the level of task difficulty needed for a particular course or individual learning level. "Hunting for Huck" illustrates a ten question example of a Treasure Hunt that culminates with "The Big Question": a prompt for a 3-5 page essay that asks the student to synthesize information gained from each quiz question that results in a cohesive, complex thesis. Both the Web Trip and the Treasure Hunt are assessed according to the same criteria used in evaluating traditional, paper-based quizzes and compositions.

At the high end of the research Web tool strata lie the CyberQuest and the WebQuest. Deal (1999) developed the CyberQuest "to help focus secondary English education students on productive processes for assessing Web-based educational materials and incorporating them into the classroom" (p. 50). The CyberQuest advances collaborative learning through group role-playing activity, which promotes the interactivity desired in Web-based learning. Bernie Dodge created WebQuest, the paradigm for Web-based research activity, for much the same reasons. Braun

(2001) admitted that, initially, WebQuests functioned largely as "glorified worksheets," until assessment modes were developed to enhance the productivity of this activity (p. 32). Since the scope and sequence for the CyberQuest and the WebQuest are practically identical in purpose, the paradigm of the WebQuest alone is illustrated.

"In Quest of the Quest" (APPENDIX A) presents a metacognitive WebQuest activity designed to encourage students to experience the quest through role-play and research. It promotes group conversation and collaboration as well as individual meaning-making and cognition. Students are provided a context for the problem under consideration and resources with which to resolve it. Jonassen, Peck and Wilson (1999) considered these elements key to creating constructivist learning environments (CLEs), "technology-based environments in which students can do something meaningful and useful" (p. 194).

Authentic Assessment

MacKay, Brooks-Young and Solomon (2003) helped clear up the confusion regarding how to authentically assess a WebQuest. They amassed a helpful collection of Web

resources that assists in defining WebQuest taxonomy and modes and methods of assessment. Among the best of these, it should come as no surprise, is the site founded by Bernie Dodge himself. There are several sites that exist for the sole purpose of assessing Web-based tools. Repman (2002) lamented the lack of effective assessment materials available to educators stating "We all 'know' how to grade tests, but finding fair ways to evaluate PowerPoint presentations, dramatic performances, and you-are-there diary entries requires different models" (p. 12). In response to this need, Repman put together a list of sites that aid in designing and creating assessment tools.

Summary

A variety of Web tools are available to suit the curricular needs of the community college composition instructor. All of the resources necessary to create, cite, post and evaluate Web-based learning experiences are available in an easy-to-use, fill-in-the-blank format. Furthermore, with the exception of Web Trip Maker, which charges a modest annual fee, all of these services are free for educational use. Each activity is

easily adapted to the needs of the college curriculum,
and promotes scaffolding of skills development—which
progressively promotes student-centered learning through
Constructivist methodology.

CHAPTER THREE

DESIGN

Introduction

The project was designed with the beginning technologist in mind, to foster understanding of technology integration for educators with limited knowledge of Internet resources. The need for entry-level instructional technology (IT) materials precipitated a design that was at once nurturing and comprehensive. This led to the conception and construction of a non-threatening staff development tool—the Web Tools Workshop.

Analysis

The task of making the assessment match the assignment is simplified by carefully analyzing the instructional needs of the learning situation. In a community college composition course, equivalent to English 101, the needs are specific to the exit skills of the institution and the future needs of the student. The need to adapt Internet resources to these applications is thereby aligned with the desired outcomes. When considering the learning needs of an instructor new to

teaching with Internet resources, the goals and means of attainment remain constant.

A survey of needs (APPENDIX B) administered to instructors in the Victor Valley Community College Department of Humanities in March, 2003 indicated a lack of technology integration in instruction. Four broad categories of technology use were addressed in the survey: Instructor-centered, class-mediated, student-centered, instructor confidence. The level of instructor-centered use proved to be high: the majority of respondents professed frequent or occasional use in all categories. Alternatively, class-mediated use of technology was widely acknowledged as rarely taking place. Student-centered use was found a much more common occurrence: Each instructor asked students to use at least three out of five resources listed—over half requested four out of five. Every instructor surveyed confessed only occasionally feeling equipped, comfortable, and effective in using instructional technology, while they all affirmed that they felt it was a necessary component, and that they needed to learn more about IT. The survey was interpreted to reveal a need for greater class-mediated use of Internet resources to

accommodate instructors of varying degrees of technology awareness. The Web Tools Workshop was therefore developed with the beginning instructional technologist in mind.

Design

A well-constructed instructional design for incorporating Web-based tools into the community college composition curriculum matches instructional needs to the desired outcomes. Critical thinking and compositional modes of expression—synthesis, comparison, persuasion—are typical examples of Freshman Composition exit skills. Building upon developmental need and accessibility, the curriculum needs to match the awareness of the class as a whole. This can be difficult to anticipate, 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. Likewise, instructors need to be fostered in their acquisition of Web tool knowledge.

The CD ROM "Web Tools Workshop" was designed for use as a staff development device to familiarize community

college composition instructors with the use of Internet resources and practices in instruction. With this in mind, the design structure sought to reflect curricular applications as they are sequenced in the learning environment, while fostering instructor understanding by increments of task complexity. The exercises are thus scaffolded to facilitate instructor understanding and to replicate curricular progression as a model for classroom use. Likewise, the navigational structure was arranged to align with the scaffolding of Web tools information: from introductory concepts—background and research—through examples for use—sample activities and andragogical applications—to conclusions and recommendations—practical issues regarding use and usability. Therefore, the design structure of the CD ROM places instructional decisions and features in parallel progression with the organization of information and navigation, with scaffolding of instructor and learner as a consequent concern.

The instructional features included reflect decisions formulated using a backward design approach to instructional planning. Each component was designed and sequenced with the end goal of providing a representative

composition curriculum and a framework for implementation. The Introduction progresses from an overview of the project (Abstract) to specifics regarding theory and applications for use (Literature Review). The activities are arranged in three general categories to exemplify scaffolding techniques: Beginning Activities, Intermediate Activities, Advanced Activities. The beginning activities are word search, crossword and double puzzles. These serve to introduce instructors to easy-to-construct instructional materials that can be used within the curriculum to introduce learners to vocabulary and topics specific to instructional goals.

The intermediate activities focus on Internet interactivity. They progressively foster increasing skills improvement in instructor development of activities and student mastery of Internet usage and instructional concepts exposed within the activities.

The advanced activities presuppose prerequisite skills mastery on the part of both the instructor and the learner. These activities require sophisticated development techniques, goal analysis, and coordination of resources from the instructor. Consequently, the learner is challenged with more complex concepts and

tasks. Throughout the three stages of activity, instructor and learner each gain a growing awareness and confidence for using Internet resources, resulting in Internet independence in instruction.

The concluding portion provides background for the educator regarding the development and use of Web tools (ADDIE model). Resources, references and recommendations for further usage are included to facilitate instructor investigation.

To underpin this incremental independence in Internet use, the navigation structure provides ease of maneuvering from one section to another. Any category can be reached within a single click on the corresponding link, and each subcategory can be accessed within one link's click from its chief categorical heading. The inner structure of each subcategory is likewise facilitated by a primary navigation bar, which includes the five categories, and "Back" and "Home" links. Any space within the CD ROM can therefore be reached within two clicks of target links.

Development

The project was developed as a CD ROM using the same software needed for the generation and completion of the activities it models. Online software was needed for the creation of site-specific activities: Puzzlemaker online utility software was used to generate the word search, criss-cross and double puzzles; Citation Machine software to generate the works cited and reference page examples; Web Worksheet software was used to generate the sample Web page. Each activity created using online software was imported into MS Front Page and aesthetically embellished with special fonts and graphics using MS Word and MGI Photosuite, to provide an alternative example of activity presentation.

The remaining activities—Hotlist, Scrapbook, Web Trip, Treasure Hunt, WebQuest—were created using MS Front Page, MS Word, MS PowerPoint and MGI Photosuite. Front Page was used to construct the CD ROM and to present the information using Internet Explorer as browser software. The text for the project was generated using MS Word word processing software; content was first composed in Word then copied and pasted into Front Page. The graphics in the project were imported, edited, and enhanced using MGI

Photosuite. PowerPoint was used to generate handouts for the Web Tools Workshop; the three slides per page function was used to supply screen shots of the activities, which allowed adjacent lined space for note taking.

Implementation

On Thursday, May 15 the Web Tools Workshop was presented at Victor Valley Community College in the Humanities Complex (HC), to disseminate Web tools information and to determine usability. It was held in a fully functional computer facility, housed in HC 15. Participants for the workshop were solicited from the Department of Humanities: Literature and Languages. A flyer was distributed to department members' mailboxes to advertise the Web Tools Workshop (APPENDIX E); five instructors from the departments of ESL and English responded and reserved seats for the three hour workshop.

The activity began at noon with an introduction to Web tools and an overview of technology integration. The activities then were discussed in scaffolded order, as they appeared on the CD ROM (APPENDIX A), using an LCD projector to present the information and handouts to

illustrate the concepts involved. The first activity was the generation of puzzles using Puzzlemaker: the user generated a word search puzzle reflecting personal curriculum need on a topic of choice. The activity took fifteen minutes to construct, download, and print. A discussion on processes for use and assessment followed, which concluded the segment of the workshop on beginning activities.

Next, intermediate activities were discussed: Citation Machine, Hotlist, Scrapbook, Web Worksheet. The Citation Machine site was visited and discussed, and the user was encouraged to investigate the functions of the program independently. After a discussion on the processes and procedures for use of Hotlists and Scrapbooks, the user was enabled to generate a Web page using Web Worksheet. Within a half hour, the user was able to generate and post a Web page on a topic of choice.

Finally, advanced activities were discussed: Web Trip, Treasure Hunt, WebQuest. A general discussion of the process and procedures for use of each activity ensued, including methods of student presentation and

assessment techniques. The user then visited the Filamentality site and investigated it independently.

The Web Tools Workshop concluded with an open discussion of scaffolding techniques and methods for effectively incorporating Web tools into the community college composition curriculum. At the end of the workshop, each participant was asked to respond to a brief survey concerning the utility and usability of the materials presented.

Evaluation

Evaluation was performed throughout the development of the project to determine utility and usability. Feedback was facilitated through anonymous survey, direct comment, and user observation in the environments of a research symposium, a graduate course in IT, and a staff development workshop.

On May 1, 2003 the project was presented before an academically diverse audience at the Second Annual California State University, San Bernardino College of Education Research Symposium. At the conclusion of the PowerPoint-assisted presentation, attendees were asked to respond to a Lickert-scale survey composed of six

statements, each with additional space provided for comments and suggestions (APPENDIX C).

The feedback gained from the surveys was used as a formative evaluation to determine the projected utility and usability of the project. An overwhelming majority of respondents agreed or, most often, strongly agreed that Web tools provide a useful and useable resource—which provided encouragement, but little in the way of constructive criticism. Of the 3% that expressed disagreement with any of the statements, 75% disagreed with the statement “I believe that I would be able to use Web Tools after this brief exposure to them.” Since the project was presented in a ten minute time frame to conform to the Symposium schedule, it is surprising that only 2.25% of the respondents expressed a lack of confidence in Web tool usability. The remaining .75% of disagreement concerned the need for the project as an instructor resource; being such a small percentage, the response was all but dismissed.

Comments and suggestions were likewise predominantly positive: 44% of the respondents provided supportive statements regarding the presentation of the project. Among the adjectives used to describe the

content, "informative," "encouraging," and "non-threatening" were the most reassuring, as those were the chief goals in constructing the project. The only piece of constructive criticism offered addressed the need for more in-depth coverage—once again, understandable considering presentation time constraints. The formative evaluation affirmed the utility and usability of Web tools in post-secondary instruction; therefore, no design changes resulted from feedback.

An informal formative evaluation of the project was performed in an IT graduate course on May 5, 2003. In an open-forum discussion, participants expressed concerns regarding the layout of the index pages. The graphic layout of the pages was criticized for being incompatible with that of the individual activities. Also, the background color of the index pages was observed to clash with the backgrounds of the activities. Feedback provided during the formative evaluation initiated major design changes to enhance aesthetic continuity.

The Web Tools Workshop held on May 15, 2003 provided the feedback for the summative evaluation of the project. A Lickert-scale survey composed of ten statements, each with additional space provided for comments and

suggestions (APPENDIX D), was given each participant at the conclusion of the workshop. The user agreement was polarized in response to each statement: each participant strongly agreed to statements 1-8; each agreed to statements 8-9; each disagreed with statement 10.

Statements 1, 2, and 7 reflected the clarity, organization, and effectiveness of the presentation. This data is relevant to the presenter as well as the information, and therefore may be interpreted equally as commentary on human and material resources. Likewise, statement 10 places similar emphasis on the presenter and the presented: it suggests that the materials needed "more detailed coverage." (These anomalies will be discussed in the next chapter.)

Statements 3-6, the remainder of those with which the group strongly agreed, confronted the utility and usability of Web tools directly. The need for the presented materials as a personal and an educational resource was forcefully voiced, as was the potential for future use of Web tools and resources in education.

Agreement on statements 8-9 considered the utility and repeatability of the Web Tools Workshop for in-service use: the Web Tools Workshop provided a "needed

staff development tool" and the user could "present a Web Tools Workshop using this resource." The positive feedback regarding the utility and usability of materials and methods used in the workshop during the summative evaluation fostered no change to the project.

Summary

The Victor Valley College Technology Survey revealed a need for staff development in technology integration. The Web Tools Workshop was developed in response to this need, designed to facilitate ease of use by beginning technologists through scaffolding of skills development. With the novice technologist in mind, the programs used to create the project were chosen for accessibility of use and application: the online software is easy to access and to use; the commercial software programs are industry standards for ease of use and compatibility. The Web Tools Workshop afforded the opportunity to implement these instructional and design decisions in a staff development environment. The three stages of evaluation helped maintain and modify elements to facilitate understanding, though design decisions were altered as a result of the formative evaluation.

CHAPTER FOUR
CONCLUSIONS AND
RECOMMENDATIONS

Introduction

The project to effectively incorporate Web tools into the community college composition curriculum provided a valuable staff development device to help instructors integrate technology into the learning experience. Further studies may provide information on how effectively instructors incorporate technology using Web tools, 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.

1. There is need and desire for increased technology integration at the community college level of composition instruction.
2. Web tools provide an effective means of initiating technology integration into the community college composition curriculum.

Recommendations

Further research needs to be done to determine usability and effectiveness of Web tools in the community college composition 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.

Summary

The project achieved its instructional goal of providing a tool for the effective integration of technology into the targeted discipline and level of instruction. However, further inquiry is necessary to determine the ultimate utility and usability of the Web Tools Workshop staff development tool and the use of Web tool generated activities.

APPENDIX A
WORKING WITH WEB TOOLS CD ROM

WORKING WITH WEB TOOLS CD ROM

APPENDIX B
SURVEY OF NEEDS

Victor Valley College Technology Survey

This survey is part of a graduate research project, with aims toward on-campus staff development. Please take a few minutes to respond. You may leave this form with Cynthia Bourdy in HC4 or in my mailbox located at the switchboard. Thank you kindly, Michael Shefchik

I use the computer:	Frequently	Occasionally	Rarely	Never
1. For email	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. For educational research	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. For personal productivity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. For class instruction	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. For tracking grades	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

I use this technology with students:

6. Email	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. DVD	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. VCR	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Overhead Projector	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Television	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. LCD Projector	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Digital Photography	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Audio Recorders	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. On-line News Sources	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. Electronic Message Boards	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. Distance Learning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. On-line Databases	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. Web Quest	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. Video Conferencing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. Voicemail	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

I ask my students to use these resources:

21. The Basic Skills Lab	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22. The Writing Center	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23. Adaptive needs facilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24. Personal Computers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25. Electronic library sources	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

My thoughts on the use of educational technology:

26. I am comfortable with it.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
27. I use it effectively.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
28. I feel equipped to use it.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29. It is a necessity.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
30. I need to learn more.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Optional:

Name _____ Department _____

APPENDIX C
FORMATIVE EVALUATION SURVEY

APPENDIX D
SUMMATIVE EVALUATION SURVEY

APPENDIX E

WEB TOOLS WORKSHOP FLYER

Web Tools

**Thursday, May 15
VVC Room HC15
From Noon till Three**

Workshop

Presented by Michael Shefchik

Would you like to create, post, and generate activities on the Internet? and allow your students to do the same? using free, fill-in-the-blank, online software? Learn how while creating your own class activities. It's quick, easy, and fun!

Workshop topics include these activities and issues:

- **Internet search activities**
- **Net-based quizzes**
- **Technology integration**
- **Erecting and posting a Web page**
- **References and works cited page templates**
- **Next-step scaffolding**
- **E-effective assessment techniques**
- **Templates for word search and crossword puzzles**

We need five people to participate to present the workshop, but space is limited. So don't delay; RSVP ASAP OK? Contact Cynthia Bourdy @ ext. 2606, Humanities Office HC4 or Michael Shefchik @ ext. 8580 (voicemail) to reserve a seat.

PLEASE RESPOND By Tuesday, MAY 13!

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