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VIDEO-BASED TUTORIAL ON WEB DESIGN FOR THE
TECHNOPHOBIC TEACHER

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
Richard Ma
June 2001

VIDEO-BASED TUTORIAL ON WEB DESIGN FOR THE
TECHNOPHOBIC TEACHER

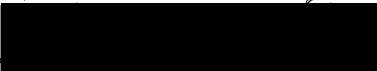
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June 2001

Approved by:



Amy Leh, First Reader

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ABSTRACT

Given the many studies that suggest the efficacy of technology use in the classroom, especially coupled with the Internet, and given the extenuating circumstances of business and governmental opinions on more technology use in schools, the reality is far from what is expected. There are still teachers out there who are computer illiterate which in effect translates into their students being computer illiterate.

This project traces the factors that affect why teachers are reluctant to use technology: technophobia, job security, and administrative support. The project also provides a basic understanding of web engines and web-based searching useful in the overall implementation of the design steps.

The gist of the project centers on two items: (1) a comprehensive instruction manual on basic web page construction and (2) a video-based tutorial that highlights the topics introduced in the manual. The design is based on learning theory advocated by Gagne (1977) and Skinner (1961). Such learning theory correlates with the video tutorial. This learning theory is essential for the first

time learner since automaticity is desired and technophobia is greatly reduced. Behaviorism is the main theory advocated in this paper because such theory is helpful in training beginning users of technology. The demands of constructivist learning are not placed on learners, especially when the element of fear is involved. Further, motivation is provided for the learner through stimulus-response, which helps in the immediate retention of materials. Guidance through the form of modeling can be achieved through the video presentation. Repeated exposure to the same elements also helps with enhanced retention and transfer of learned concepts.

A linear model is used in the presentation of the video and lessons because simplicity is valued, especially for the beginning computer user. Further, because of the intended audience who lack the basic computer skills, the linear model helps to avoid some of the confusion normally associated with the more complex non-linear model (varying levels that distract and disorient users, multi-layered information that is difficult to access and retain).

Also, the issues in the development of the tutorial are discussed in depth. A qualitative assessment of the

project is then presented followed by an appendix that offers the complete instruction manual as well as the contents of two model web sites used for instruction.

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CHAPTER ONE: INTRODUCTION

Background Information

The United States Congress in House Resolution 6, Publication Improving America's Schools Act of 1994, mentions that technology essentially helps students learn to higher standards and is required for much needed educational reform that will help schools be more effective. The California Education Technology Task Force (1997) noted that "computers have thoroughly permeated American commerce, and estimates are that by 2000, 60 percent of all jobs in the United States will require a working knowledge of computer-based information technologies" (p. 3). Much research has touted the success of using technology in the classroom (Alexander, Kulikowich, & Jetton, 1994; Cognition and Technology Group at Vanderbilt, 1990; Marcinkiewicz, 1993/94; Van Haneghan, Barron, Young, Williams, Vye, & Bransford, 1992). Further, technology use is scarcely becoming an idea of choice; rather, more and more districts (three-fourths of all states) are developing or implementing technology-based curriculum (Smith, Munday, & Windham, 1995). More and more computers are being placed in the classroom, and the ratio

of computers to students is dwindling. According to data gathered by Technology Counts 1999, an on-line firm (<http://www.edweek.org/sreports/tc99>), the ratio of students per instructional computer was 8.1 in 1999. That ratio continues to diminish.

With the heightened demand, perhaps mandate, for technology use and the addition of more computers into the workplace and classrooms, there is a proportionate and ever-increasing Internet presence. In a national survey of schools and teachers, the report found that 90% of schools had varying levels of Internet access (Ravitz et al., 1999). Further, from fourth to twelfth grade, 40% of classrooms had access. Not only is this access to the Net important, but what the Net offers is equally important.

More than a few studies, both scholarly and professionally, have touted the successes gained in student learning with the complement of the Internet. Zhao (1998) theorizes:

With its [the Internet's] increasing capacity for multimedia, multi-mode communication and information presentation, easy access to an ever-growing body of information, and new ways of data representation, the

Web presents educators with exciting opportunities to enhance teaching and learning. (p. 1)

Selwyn (1999), in his negative attack on Internet use, nevertheless and ironically reinforces its efficacy: (1) the net allows users to reach information beyond borders, (2) information is culturally rich, and (3) creative and aesthetic elements can be incorporated from and into Internet use.

Kosakowski (1998) suggests that the Internet allows students more autonomous learning opportunities in a constructivist approach. He further adds that critical and analytical thinking can arise from this "new technology" and cites a study by the Center for Applied Special Technology (1998) that experimental groups with online access showed "significantly higher scores on measures of information management, communication, and presentation of ideas" (p. 2).

Bowman (1998), in relating the Internet to counseling, suggests that "members of groups can access information and resources, find support, and enjoy the freedom to explore themselves and their relationships with others and, perhaps, create a new sense of belonging to a larger global

community" (p. 1). He further adds that access to the Internet has led to the creation of interactive social and learning communities. Agarwal and Day (1998) linked Internet use by an Economics class to an increase in the quality of education and noted that the Internet allowed teachers to meet the challenges of teaching. Others have voiced the Internet's efficacy (Becker & Ravitz, 1999; Mike, 1996). Moreover, President Clinton has called for Internet wiring of every classroom in the United States by this year (The Digital Challenge, 1997). As of 1999, the percentage of schools with Internet access was 87%.

Indeed, an overwhelming number of studies have demonstrated the importance of technology and the Internet as important teaching tools and learning mediums. With the political bandwagon entering the stage, technology's importance, including the Internet, is heightened.

Statement of the Problem

Given the studies that suggest the efficacy of technology use in the classroom, especially coupled with the Internet, and given the extenuating circumstances of business and governmental opinions, it behooves teachers to begin using the technology available for classroom

instruction. However, most teachers are not. Roblyer and Erlanger (1999) undeniably contend that teachers are not prepared to use the available technology. In fact, as the authors note, "that idea [lack of technology use because of poor preparation], if not the reality, has become almost a banality" (p.1). In one study's conclusion, more than half of the teachers who completed a questionnaire from four schools reported that they did not use computers for teaching (Marcinkiewicz, 1993/94). Further, Pelgrum and Plomp (1991) surmised that computers are extensively used, but only in a small segment of classrooms. And even in cases where technology is being used, most only use it for "drill and kill" exercises or as electronic worksheets (Eisenberg & Johnson, 1996). Though drill-based exercises are needed in some instances, current technology allows educators to do so much more, especially in areas of higher thinking skills and problem solving.

With the ever-increasing need for our society to be computer literate (especially in the area of the Internet), it is unfortunate that most of our teachers are not. This weakness translates into our students also lacking the computer literacy needed to succeed in the "real world,"

i.e., the world of business and work. In fact, in quite a blunt statement, The California Education Technology Task Force (1997) noted that "if the teachers don't catch up and start to incorporate this technology into the classroom more effectively, the kids are going to stop coming to class" (p. 8).

The problem is easy to see: The technology is available. The need for its effective use is overarching. The world of work demands an understanding of technology information. The Internet can serve as a good resource for and tool of teaching and learning. However, many teachers are not trained or prepared to handle the above mandates and are reluctant to use the technology. Therefore, our students are not receiving the type of education they deserve and need in order to be able to compete effectively.

Overview/Goals

The aims of this project hope to trace the factors affecting teachers' use of technology, with a concentration on Internet usage, and offer steps in helping teachers move toward integrating the Internet into their curriculum. With these strategies, the paper and project should help all

teachers who are novice users of the web understand the theory and practice involved in creating a web page and in using the Internet as a curriculum tool. However, because of the vastness of materials involved with the Net and because of the many programs that allow users to create web pages, this project will focus on a more preliminary aspect of Internet usage such as simple searches using common search engines. Further, in meeting teachers' access to web-authoring programs, this project will highlight the use of and lessons involved with Claris Homepage, Version 3.0. The presumed understanding is that once a web-authoring program is learned, movement from one application to another would be relatively simple, such as moving from Claris Works to Microsoft Works. Though there are differences, the basic procedures are the same or equal in scope.

Moreover, the project will offer novice users a linear-based, instructional video on how to create web pages. This video will be accompanied by two fully created web sites serving as models. One example will center around a web site created using a template provided with Claris Homepage, Version 3; the site will focus on an

interactive, interdisciplinary geography unit. Another one will concentrate on a unit for teaching Jack London's The Call of the Wild; further, this latter example should give the novice web user a relatively sound model of lesson integration for classroom use.

Chapter Two of the thesis will provide a comprehensive literature review on factors affecting teacher usage of technology and of the Internet field. Chapter Three will give information on effective instructional design strategies, including goals and objectives, project and content outlines, and developmental considerations. The Appendix will offer a step-by-step instruction manual on creating a basic web site. These instructions are quite elementary in scope, so that non-or-limited users (teachers) of technology may benefit from it. With all of this in mind, this Master's Project should help teachers move one step closer to effectively integrating technology into their classrooms. As a result of these aims, this project also hopes to encourage teachers to maximize the benefits of technology use. Such a move will ultimately benefit student achievement and learning.

Significance

This project is significant in that it addresses the calling of the federal government to utilize more technology in the classroom. The project gives teachers a non-threatening way of integrating web-based technology into their teaching. It helps teachers maximize their technology application.

Also, research (as later described in the literature review) has noted the effectiveness of using technology, so this project helps teachers use technology for their students' benefit. Students need and demand knowledge in this field to help them survive their ever-rich and ever-challenging future.

Another significant point is the fact that the Internet continues to play a major role not only in education but also in life. More and more companies have web sites, and programs such as Web Quest bases learning on using web tools. This project can help teachers understand the fundamentals of web sites and web-based learning for effective functioning in the school atmosphere and in life.

Moreover, teachers are intimidated by technology, and this project helps them learn technology without the fear.

It addresses technology in meaningful steps and leads the teacher concept by concept. When these fears are erased, teachers can move toward higher levels of technology use, and the significance of this movement cannot be overstated.

Limitations

Limitations are a mainstay for any project, and this one is no exception. The most notable limitation was the lack of teachers who volunteered to be observed for the implementation stage of the project. This in turn limited the actual amount of data that could be gathered. Such data would have been helpful in the project's redesign. Ultimately, the redesign (based on more data) would have made it more useful for teachers.

The overall project is limited in scope in that it only addresses one topic in technology. If there were time, more projects of this nature can be created for varying fields of and application in technology, such as tutorials on PowerPoint or video-editing. Conclusively, such time restraints are common to most projects, and not much can be done to address such an issue.

These limitations did not prevent the completion of this project. At this stage, it is a useful project that

can benefit teachers and students alike, and it is hoped that teachers will use the project to help themselves learn this valuable technology.

CHAPTER TWO: REVIEW OF RELATED LITERATURE

Introduction

This chapter focuses on a comprehensive review of literature addressing factors that affect teachers' use of technology and of the Internet field. Technophobia, job security, and administrative support influence whether teachers use technology or not. An examination of these issues is offered.

On a different note, the positive and negative effects of the Internet are examined in this chapter. Related to that topic is a discussion on search engines and the basic procedures in undertaking Internet searches.

Obstacles to Integrating Technology in Education

In order to be able to effectively move teachers to use technology, the factors that affect teacher usage must be examined. One such factor is technophobia. Much research within the decade has shed light on the nature of technophobia or more appropriately termed, computer anxiety. Bradley and Russell (1997) alluded to a meta-analysis of eighty-one studies conducted by Rosen and Maguire (1990) that correlated severe computer anxiety to less than ten percent of the population. However, given

this conclusion, it is correct to assume that computer anxiety does play an important role in deterring non-computer users from using the computer. Bradley and Russell (1997) also alluded to a "range of personal correlates of computer anxiety" (p. 267) which may include gender differences, distrust of technology since it may signify the need for change, a general distaste for technology, and prior exposure to technology that left a lasting negative impression. Low rates of computer use was directly linked to high rates of anxiety (Gresard & Lloyd, 1985; Pancer et. al., 1992; Rosen & Weil, 1995). In the case of the teacher, this ratio would be detrimental to student learning.

Russel and Bradley (1996) noted that people do fear that technology might take away their jobs. Indeed, in a short historical analysis of teachers' anxieties of computer use, Russel and Bradley cited Thomas Edison's prediction, "Books will soon be obsolete in the schools ... Scholars will soon be instructed through the eye. It is possible to touch every branch of human knowledge with the motion picture" (p. 248). Though Edison's comments appear

obsolete, the reference of "motion pictures" can now be correlated with computer and higher-end technology.

Another area of concern for teachers who are not using computers in their classrooms is the lack of and the perception of the lack of administrative support. Wright (1991) concluded that minimal administrative support drove teachers from the field of technology. Hill et. al. (1996) researched the perception of technology education professionals, school principals, and school counselors. They found that though there was very little variance in the three groups' perception of technology and that administrators showed a greater understanding of the field, teachers' stereotyping of principals remained the same: non or limited support. The stereotyping may stem from the hierarchical principal-teacher dyad, where principals are portrayed as "expert and superior, teachers as deficient and voiceless" (Reitzug, 1997, p. 343).

Bozeman (1991) called into question the lack of training of administrators. He concluded that administrators need to be "trained to be effective managers of technology within schools" (p. 522). It is difficult to provide administrative support if the administrators do not

know the technology themselves (Bozeman, Raucher, & Spuck, 1991). Though this project is geared towards the classroom teacher, there is room in the lessons for administrators and students alike to use this project for their own learning. Such a move on the part of the administrators can benefit the technophobic teacher since administrators can understand some of the elements involved in learning technology and confirm the anxieties associated with the process.

Bradley and Russell (1997) linked competent computer use and less anxiety by teachers with perceived administrative support and found that less supportive environments produced the reverse findings. Becker (1994) overwhelmingly found in his analysis that teachers who are classified as exemplary computer users were those who were teaching in districts that provided "relevant and broad-ranging staff development activities [and] that they have access to computers at school and have the time to use them personally" (p. 316). Again, in this situation, administrative support prompted competent computer use, and the reverse may be assumed. Hoffman (1996) cited Hadley and Sheingold (1993) by noting that administrators can help

the integration of technology into the classroom by "boosting teachers' self-esteem [through] recognizing accomplishments and awarding progress toward technology integration with advancement, opportunities for professional development, and financial rewards" (p. 91).

Meltzer and Sherman (1997) directly noted that "principals must encourage teachers to continue building and using technology-based skills" (p. 26). They further concluded that hardware and software must be made available and that adequate time and training must be provided. This project can also serve as the catalyst for a beginning training program, whereby administrators and teachers collaborate on learning and developing technological competence.

The Efficacy of the Internet in Education

In addition to time and training, teachers should be given a general understanding of the technology they are using, especially with the increasing role of the Internet in education. Most people faintly recall that the Internet started as part of the Defense Department's desire to create a communications network in case existing infrastructure would be destroyed by a nuclear attack.

From its grandiose beginnings, the Internet has proven itself far more than its predecessors have thought capable. From its origins as a military weapon, the Net has now transformed itself into a vehicle of commerce, advertisement, and research. What is even more astonishing is the current production of Internet2, a high-speed digital network tailored to the needs of the national research community while at the same time enabling further use and development of broadband technology. The final aim of this highly ambitious project seeks to transfer the entire technology to all levels of educational use and to the broader Internet community. For further explanations on this emerging idea, access the following official site of Internet2 (<http://www.internet2.edu>).

The continual transformation of the Internet begs the following premise: Is the Internet an effective tool in teaching and learning? Much literature has touted the efficacy of the Internet in education. Feisel (1997) emphasizes that the Internet can make a difference in learning and teaching. The traditional mode of information dissemination can be transformed into shorter units that are more manageable and readily accessible. Students can

easily adapt each unit to their individual needs, whereby a scaffolding process can exist. Students who are on long term leave from school can also benefit since all units readily exist on the Net for them to access.

Becker and Ravitz (1999) conclude that Internet use in teaching leads to changes in teaching practice:

(a) teachers being more willing to discuss a subject about which they lack expertise and allowing themselves to be taught by students, (b) orchestrating multiple simultaneous activities occurring during class time, (c) assigning long and complex projects for students to undertake, and (d) giving students greater choice in their tasks and the materials and resources they can use to complete them. (p. 12)

Becker and Ravitz's ideas above do promote a project that helps teachers understand the web-based technology, such as this one. What makes it even better is the idea where teachers do not need to feel that they have to be experts in everything, including technology. This concept tremendously reduces anxiety and leads teachers to be more of risk-takers.

Kosawkowski (1998) suggests the Internet can be used as a communication medium to decrease isolation. E-mails can help open lines of communication with other teachers from within and beyond the school; emails can also help in communicating with parents, businesses, and students. In this critical age where public education is under attack from different venues, opening the lines of communication makes perfect sense, for teachers need to become walking-talking commercials of their profession. Indeed, the Internet can assist in this latest endeavor. Further, school home pages can offer parents and the community information regarding events taking place on campus, such as Parent Open House Night, academic and sports championship games, or even basic information on teachers and their backgrounds. Further, Internet communication via e-mails or chat rooms can help teachers reduce technophobic anxiety. If one technophobic teacher communicates with another, then the process of collaboration can begin which aids to reduce anxiety as well as increase technological competence. Indeed, using the very medium that causes anxiety to discourage anxiety makes great sense.

Kosawkowski (1998) also notes that the Internet can help teachers expand their horizons. With California's continual demand for teachers to renew their credentials through professional development, the Internet can serve teachers well in this area. On-line courses make it possible for teachers to take classes from the comforts of home. This mentality should also be translated into learning in the classroom, where students and parents should be able to access course information (syllabus), homework assignments, project guidelines, and general school information via the information superhighway. The ease in doing so cannot be underestimated.

Rekrut (1999) notes that integrating the Internet into the classroom is educationally sound, for it provides readily available and comprehensive information. Students wishing to conduct research can technically find over 10,000 sites on any given general topic. Different search engines (described later) can yield different results depending on the search. Traditional encyclopedias exist on the Internet, and most times, the search is easier and quicker using the Internet. Finding related materials to a given topic is much easier (sometimes a click away) than

using the card catalog or searching for annotated bibliographies in the back of books. Further, information on the Net can sometimes be more recent and relevant than those found in the traditional mediums. For instance, a student who wishes to experience firsthand the atrocities of war in Chechnya might be able to locate a current site listing personal narratives or day-by-day events from the victim's perspective. Such information would take, at the very least, a year to even be published in book format. Of course, the above comments do not necessarily negate the effectiveness of printed materials. The Internet, however, should be thought of as another teaching tool that should be used more often, but at the current state, it is not.

Ross and Schulz (1999), though focusing on higher education, nevertheless present compelling ideas useful for the k-12 level. The web can accommodate diverse learning styles. The traditional methods of learning have certainly changed, in some cases dramatically, from the 1950s where students were lectured to and were expected to absorb the materials presented. Currently, with the discovery of various "afflictions," such as Attention-Deficit-Disorder (ADD) and new research on the brain's ability to absorb

information, Ross and Schulz (1999) contend that the web can be a multi-mode harbinger "used to accommodate students with diverse preferences for processing sensory information" (p. 3). They cite the three domains of learning that the Internet can include: visual, auditory, and kinesthetic. The web can certainly accommodate these modalities of learning, but Ross and Schulz also add the concepts of socialization and thinking. Such a powerful medium should, by virtue of its benefits, be incorporated into teaching.

Mike (1996) contends that the Internet is a powerful teaching tool with both benefits and obstacles. Though the above discussion centers chiefly around the positive effects of the Internet, no discussion is ever complete without noting the negative aspects also. Within the field of education, it is important for teachers to understand that there are negative issues, especially when it comes to safety. For the novice user, the following rule of thumb should suffice when it comes to personal safety. No personal information (social security number, credit card number, full name) should be given to any organization. This rule also applies to students who use the Internet.

Teachers also have to monitor student use of the Internet in the classroom. Some sites are inappropriate for students to access, and not all district firewalls will prevent students from getting to them. Other sites, such as chat rooms, might also be inappropriate for students. These sites would be difficult for teachers to regulate, so having a policy banning students from entering chat rooms would be a good idea.

Other issues also add to the negative effects of the Internet. The content associated with some sights may be suspect. In other words, not all information from the Internet is relevant and accurate. Some may contain propaganda, and both teachers and students need to understand the differences between accurate and irrelevant information. Verifying the content with acceptable sources such as established encyclopedias makes good sense because the Internet is not regulated, and in the general sense, held highly unaccountable to any government organization.

Other negative aspects of the Internet do exist, but these should not deter teachers from employing such a powerful technology in helping them be more effective teachers. This reasoning can be compared to the concept of

crime in our cities. People do not lock themselves up day and night just because there are crimes in their neighborhoods. Instead, most sensible people take precautions to address the crime. The same need for taking precautions should be emphasized to teachers and students to help promote the healthier use of the Internet.

Employing Search Engines

The discussion thus far has dealt with the efficacy of incorporating the Internet into teaching. The following topic deals with the first and perhaps most basic use of the Internet: searching for information. Because the Net is comprised of millions of documents, it would be time consuming and almost impossible to deal with it if it were not for databases that categorizes information accordingly. Such databases are known as search engines. Moreover, because the Net is ever-expanding, search engines cannot totally categorize all sites, which may be beneficial for the novice web user.

At the current rate, these are the main search engines available: (1) Yahoo, (2) Alta Vista, (3) Excite, (4) Infoseek, (5) Lycos, (6) HotBot, (7) WebCrawler, and (8) Google. There are various other engines within company

portals such as Microsoft's MSN Network, America Online's AOL Search, and Disney's Go network (now incorporated into Infoseek). Most of these search sites practically use the same concepts: Boolean or phrase matching. In other words, phrases typed into a search are located in the search engines and are presented for the viewer as the number of hits, sites, pages, or documents.

It is unnecessary to describe in depth the technical functions of a search engine, especially for the novice web-user. Such information can be found in Internet manuals at bookstores nationwide. However, it is important to discuss the criteria for undertaking a search. Because of the Boolean and phrase-matching nature of search engines, a difficulty arises. Some searches may yield more sites than needed. For example, a search with the terms "Internet education" on Infoseek yields over 10,312,530 sites as of February, 2000. Further, different Internet engines use different Boolean logic to conduct their searches. These dilemmas do not necessarily mean that searching for information is a difficult task. The information seeker just needs to be more selective.

Bertram (1999) offers a good point for web users when conducting a search. Because each search engine uses its own syntax for specifying Boolean expressions, it would be a good idea to type the search terms differently. For example, the same term "Internet education" with the quotation marks produces 3,907 results. Further, by specifying a search term, the "hits" decrease. Changing the previous search to include "effective Internet education" yields only 23 sites. Again, for the initial web user, the steps are simple: (1) type in a general term and see the number of results; (2) specify search terms using specific Boolean syntax for each engine (see <http://www.daphne.palomar.edu/TGSEARCH/> for tips in performing searches specific to each engine).

As more practice accompanies searching, the above steps can be elaborated upon. Baggot et. al. (1999) provide several useful tips. One of them is to begin by using one or two search engines. As with any tool, comfort and familiarity inevitably yields greater ease and better searches. Baggot (1999) also suggests choosing the search phrase more selectively:

Are you looking for a proper name or a distinct phrase? Are some of your terms common words, with meanings and contexts? Do you anticipate lots of search results with terms you do not want? Are there synonyms, spelling variations, or foreign spellings for some of your terms? Are you looking for home pages and/or other documents primarily about your terms? Are you looking for terms with many possible endings? (p. 160)

To recapitulate, search engines are not difficult tools for teachers. They should be employed to empower teachers in helping them assist their students by providing another means for information access and retrieval. Such a process, coupled with extensive use of other tools available because of the Internet such as web site creation and e-mail, inevitably will be beneficial to all parties involved.

CHAPTER THREE: DESIGN AND DEVELOPMENT

Introduction

What does it take to encourage teachers to use computers? Administrative support seems to be the dominant factor since the move to experiment with the computer diminishes computer anxiety over the long term (Overbaugh & Reed, 1994/95). What then can administrators do to help teachers? Administrators can implement the following design which incorporates learning theory coupled with software design theory to create an initial tutorial for teachers who have no, little, or intermediate experience with computer use. What this design hopes to do is to encourage teachers to make that gigantic leap into integrated computer use, especially coupled with the Internet. Given Zhang and Espinoza's (1998) findings, the instructional design for this project will be a stand-alone model so that self-efficacy can be realized. This may be related to Kinzie, Delcourt, and Powers's (1994) definition of self-efficacy: "an individual's confidence in his or her ability which may impact the performance of tasks" (p. 420).

The goals and objectives for this project as well as the project and content outlines will be considered in this chapter. Also, a brief note on the learner's characteristics will be mentioned. An appendix that includes an instruction manual on how to create a web site will accompany this chapter; a flowchart showing the steps involved in web site construction will also be included. Two web sites that serve as models of web site construction will be discussed. The overall vision of the project is a video tutorial that synchronizes with a computer tutorial in a linear fashion. It makes sense to teach technology skills using the computer since a large portion of research has indicated that students learn just as well or better via the computer (Swan & Mitrani, 1993). Though Carroll and Bain (1994) have touted the success of interactive video as opposed to the linear model, this proposed design will nonetheless utilize a linear model because simplicity is valued, especially for the beginning computer user. Further, Sherry (1998) cautioned against creating designs that might confuse the learner: "Multimedia authors must move with facility between the knowledge and authoring worlds, being aware of factors in multimedia designs that

might disorient and distract users, such as multiple layers of information numerous pathways to data" (p. 201).

Design

The main objective of this design section is to examine the basis of design theory in developing a project that would help ease technophobia in teachers and novice technology users. This section is devoted to examining the principles involved in the make-up of this project.

The design of this project is created for a highly structured learning environment. Though Russell and Bradley (1996) had concluded that some students had preferred to explore the computer while being able to ask for immediate assistance which lead to a reduction in computer anxiety, they also had noted that some students preferred the structured environment which also lead to a reduction in technophobia. The reason for the latter design technique is that immediate assistance may not always be available, so a stand-alone model would be more beneficial.

The design of the project's content will be based on the behavioral model where one concept presented is quickly reinforced with an action. In other words, the video will

show the learner how to start the program on the computer, and the learner at that time will push pause on the VCR and manually start the program. Such behavioral learning, also known as stimulus response developed by B.F. Skinner, advocates "that learning occurs from the association of responses with stimuli" (Gray, 1990, p. 109). Moreover, the immediacy of instruction and practical response helps to strengthen or reinforce learning; continuity theory expounds on this last point (Gray, 1990).

This learning theory is essential for the first time learner since automaticity is desired, i.e., teachers should be able to start Claris Homepage 3.0 and perform various other functions as dictated in the video/manual tutorial without having to feel pressure or fear. Wang and Sleeman (1994) noted that a learner can efficiently perform more complex tasks if the lower subskills are performed automatically. They further asserted that "the interaction capability of the microcomputer can provide the practice necessary for the learner to reach 'automaticity'" (1994, p. 68). It is then assumed that the automaticity of simple tasks such as turning on the computer, opening programs, and saving work will lead to the interaction of more

complex tasks such as navigation through various file pathways and creating interactive web pages.

The video and computer platform also relates to Lev Vgotsky's "zone of proximal development" (Grabe & Grabe, 1998). By having the video, through a demonstration, prompt the learner to perform certain tasks on the computer, the video helps to create a comfort zone for the learner since proper assistance is provided. Also, computer phobic teachers are not afraid of using the VCR since that medium has been acculturated into the school environment.

Practically everyone knows how to operate a VCR, especially the basic functions of play, pause, rewind, forward, and stop. These widely known VCR procedures are the only prerequisite knowledge needed for mastering the video aspect of this project. Using one mode of familiar technology to prompt another unfamiliar one makes sense and connects with Vgotsky's theory. Also, Vgotsky's concept of scaffolding is met, where clear step by step instructions are pronounced (Grabe & Grabe, 1998).

Overall, the project follows Gagne's "Events of Instruction" (Overbaugh, 1994). Titles per screen are presented and motivation is provided for the learner

through stimulus-response. Guidance through the form of modeling can be achieved through staff development (discussed later) as well as through the video presentation. Repeated exposure to the same elements will also help with enhanced retention and transfer of learned concepts. In fact, there are two sections to the video. One deals with creating a web site from scratch; the second section deals with creating a web site from a template. Both sections repeat numerous basic procedures such as opening the application, saving, and editing text.

This project, then, hopes to help the computer phobic teacher move toward greater computer use without the associated anxiety. Such a move will inevitably help teachers meet students' learning needs for the next century and create the competent work force required by the government and the business world.

Learner's Characteristics

Of course, no project can start without an understanding of the learner's characteristics. Such information provides valuable insight into who can benefit most from the project. As previously mentioned, the general target audience is teachers who have no, little, or

intermediate computer experience. These teachers range from 25 to 60 years in age; likewise, the years of teaching experience vary greatly from 2 to 25. The vastness between years really does not affect the efficacy of this project since age and years of experience are not factors. It is presumed that the learner does have the ability to turn on a computer and use the mouse and be able to operate the basic functions of a VCR; those are the only prior knowledge required. Of course, it is also presumed that a computer with the software Claris Homepage 3.0 is available at the school site for the teachers to use. Other than the characteristics mentioned above, this project can accommodate a wide range of learners.

Project and Content Outlines

The following outline presents both the project concept and the content associated with it. A complete set of instructions follows each sub-topic, and these instructions can be found in Appendix A. The outline should provide a clear-cut idea of what this project entails and can be used as an item similar to a table of contents or as a reference source. Further, a flowchart of

the following outline is also available in the appendix (Appendix B through H).

- I. The Basics
 - A. Opening Application
 - B. Saving Work
 - C. Creating a Background
 - D. Adding a Title
 - E. Formatting Title and Other Text
 - F. Inserting Pictures
- II. Arranging Items/Text for Balance
 - A. Creating a Table
 - B. Adding More Text
 - C. Creating Uniformity
 - D. Inserting Images Into the Table
- III. Creating New Pages
 - A. Creating a New Page Within the Project
- IV. Creating Links From One Page to Another Within the Project
 - A. Selecting the Proper Page for Linking
 - B. Selecting the Proper Content for Linking
 - C. Creating Links
 - D. Review: Creating a New Page and Creating a Link

- E. Verifying a Link
- V. Wrapping Up the Practice Project
 - A. Previewing in Browser Mode
 - B. Verifying Links and References
 - C. Consolidating
 - D. Uploading
- VI. Creating Web Pages Using Templates
 - A. Opening Application
 - B. Selecting the Assistant
 - C. Page Selection
 - D. Features
 - E. Page Names
 - F. Navigation
 - G. Style
 - H. Information
 - I. Summary
 - J. Location
 - K. Finalizing Project

Development

The main objective in developing this project is to create a user-friendly application based on the design principles mentioned above. This application provides the

user step-by-step instructions that are accompanied by a video presentation and two model web sites serving as reference points. The instructions can be found in Appendix A. The video was created using AVID Cinema (a video editor) and Microsoft PowerPoint (a presentation software). The web sites were created using the same software (Claris Homepage 3.0) as the one mentioned in this project.

Many steps in web site creation were analyzed, and the most crucial and easily accomplished ones were used. Some of these steps included adding text, inserting images, and creating links. Also, the basics of everyday computer use was incorporated. Items such as opening an application and saving work were brought in to reinforce the novice user's training to reach the level of automaticity that Wang and Sleeman (1994) noted in their research.

The video was created using two all-in-one G-3 Macintoshes connected via an S-Video cable. On one Macintosh was the application Claris Homepage 3.0, and the other Mac contained AVID Cinema (a video editor). As each task was being performed on the Claris Homepage Mac, the AVID one recorded the procedures. For example, as the

application on the Claris Homepage Mac was being opened, the AVID Mac recorded that process. Eventually, after all tasks were recorded, the AVID Mac was used to edit clips. Those that were too long were shortened. Transitions provided within AVID Cinema were used to move from one procedure to another. Some background music was added. Narration was timed for each task.

PowerPoint on the Claris Homepage Mac was then played, and again, the Avid Cinema Mac recorded each slide. The recorded slides were used as project titles and subtitles. They were also used as listings for each section. For example, section one of the video encompassed the basics of web design, and the PowerPoint slide was used to label all the tasks that were to be accomplished by the time the user finished that section. Overall, the final video was edited and sent to a VCR connected to the Mac using RCA cables.

The video's content was matched with that of the instruction manual found in Appendix A. Also, a time code was placed on each section of the video and written on the instruction manual next to each topic covered. For instance, the time code for opening the application Claris Homepage 3.0 is one minute and forty seconds into the

video. That time was also written next to that topic in the instruction manual. The reason for this is clear cut. Users of the video and manual can easily review a topic by rewinding or fast-forwarding to the right time on the video using the manual as a guide. If an individual wanted to review how to create a background for her page, she or he can refer to the manual and rewind the video to three minutes into the tape because that is where that topic is covered. The overall length of the video is approximately thirty-five minutes. Again, the complete manual can be found in the appendix of this project.

Further, two web sites found at the following URLs serve as models for the lessons(

[1]<http://www.sbcusd.k12.ca.us/goldenvalley/oknights/msteams/crusaders/interdis.htm>,

[2]<http://www.sbcusd.k12.ca.us/goldenvalley/oknights/msteams/crusaders/callwild.htm>).

The inclusion of the web sites follows Gagne's "Steps of Instruction" (Overbaugh, 1994). They promote one facet of the modeling aspect Gagne advocates.

The web sites were created using Claris Homepage 3.0; that is the same application discussed in this project. In

other words, readers may see end projects which uses the same skills and software taught in this project. The site on Jack London's novel The Call of the Wild fall very much in line with the first section of the video where users are taught the overall basics of web design from scratch. The site on the "Interdisciplinary International Unit" was created using a template from Claris Homepage 3.0, and this site follows the second part of the video on template use.

Both sites were created with copyrighted materials borrowed from the web; permission was asked and granted from the owners of the material. The Call of the Wild site offers the user a chance to look at what a specific lesson on a novel can look like.

The first page of this site provides a menu selection on various topics related to the novel; these topics include background information on author Jack London, a link to the complete text, a listing of characters, information on the setting, focus questions for students to examine, long-term projects for students to complete on the various topics related to the novel, and a bibliography giving credit to the sources where materials were taken. Images of wolves and background designs related to wolves

were interwoven into the site for obvious reasons.

Animated gifs were also added though they were kept to a minimum to emphasize the content rather than the style of the lesson pages.

The site on the interdisciplinary international unit was created using a template within Claris Homepage 3.0. Again, a menu selection is available and serves as the first page in the site. The first menu item links the user to a PowerPoint presentation that provides information on the objectives and requirements of the interdisciplinary unit. Other menu items lead users to scavenger hunt questions and various other professional links where they can send post cards, play international fact games, enter a three-dimensional site, and check various flags of the world.

In all, this project was developed using the sound principles discussed in the design section of this chapter. Learning theory was encompassed and practicality and ease of use were main focuses. Such procedures should help the novice user be able to learn the fundamentals of web design.

Implementation

One of the first requirements of this section is for teachers to plan. Teachers should first decide (on paper) the focus of what they would want to accomplish with a web site. For example, will the web site be a reference source for students? Will the site be a listing of spelling words or geography terms? The teacher must answer these and other questions related to their projects before starting out. Once questions have been answered, teachers can search the Net for related content to help in the creation of their sites.

Another requirement is a computer with Claris Homepage 3.0. This software will enable teachers to create a few web pages incorporating basic design theory. These web pages can be expanded upon and can lead to partial technology integration.

During the web page creation process, teachers will be asked to embed links and information gathered from searches into their pages. This skill is highly important because it allows teachers to create links to places on the web that they have already visited, thus ensuring both the

validity and safety of the information provided at the sites.

The preface for the video/computer tutorial is staff development even though the project is designed to be a stand-alone model. Staff development (a perceived aspect of administrative support) is beneficial in helping teachers overcome the phobic factor. "For teachers who do not appreciably demonstrate self-competence . . . , intervention through staff development might address these variables directly or indirectly" (Marcinkiewicz, 1993, p. 235). Hoffman (1996) presents several interesting ideas on how to conduct staff development. During staff development, teachers would be given formal instruction on how to operate the computer/video station so that, when alone, they can do it without fear or hesitation. The demonstrations would entail modeling of how to turn on the computer, turn on the VCR, and initiate the guided lessons on how to work with starting the program. Again, the modeling aspect follows Gagne's "Events of Instruction" (Overbaugh, 1994). In this case, Claris Homepage 3.0 would be used. Though the modeling appears quite elementary in

scope, it is indeed intended to be this way so that a preliminary competence can be achieved.

A similar workstation with the same type of computer and VCR would be available at the teachers' work site; this equipment is an essential element in perceived administrative support. It would be detrimental to train teachers on one style of computer (PC-clone) and provide a different model (Macintosh) for practice, even though Claris Homepage 3.0 is crossed-platform, i.e., the application is compatible with both Macintosh computers and IBM-PC clones. Teachers would also be given time to work on the initial tutorial program since adequate time and training increases the likelihood of successful computer integration (Metlzer & Sherman, 1997, p. 25).

Once teachers are given guided practice at the staff development site, they may return to their own sites for further practice. Each work station would accommodate cooperative groups of two to three, though groups are not a requirement. Crooks et. al. (1998) had concluded that the success of cooperative groups might be deceiving, especially if the computer training program is well developed. Students, especially in higher education,

learned just as much in groups as they did alone when using the well-designed technology based instruction. Students who are comfortable working alone should, and those seeking peer interaction may, do so.

An example of what an implemented project may look like follows: Teachers would initially insert the video into the VCR and press play; it should be mentioned at this point that the counter on the VCR should be reset to zero so that the time code aspect of this project can work properly. More information on the time code will be presented later.

The first item that appears on the video is a welcome message followed by a paragraph explaining the instructions. As the video moves forward, the user is asked to perform a task; the first task is to open the application Claris Homepage on the computer. Users unclear on the instructions can review this section by replaying it. Performing the required task by turning on the computer and opening the application can follow. Of course, the video at this time would be on pause. After completing the first task, the trainee can move to the next one which immediately teaches the technique of saving. As

all computer literates know, saving is often a tedious but highly necessary task; hence, that basic function is routinely emphasized throughout this video. The user can again press play on the VCR, and the steps involved in saving work would appear on the TV. If at any time the demonstrations on the video do not help the trainee, the instruction manual can be used for further clarification. Of course, for those who prefer to use the instruction manual as the initial guide, that person can use the video for clarification.

After proceeding through the thirty-five minute lesson (the length of the video-tape), the trainee can review any of the topics simply by rewinding the tape to the appropriate time code. Again, each topic has a time code that is listed on the instruction manual, and that time code matches the time on the video. By the time the trainee completes the training, she or he should have knowledge of the fundamentals of web page construction not to mention a web site created.

As the trainee continues to practice creating other web sites, she or he can refer to the two model web sites ([1]<http://www.sbcusd.k12.ca.us/goldenvalley/oknights/mstea>

ms/crusaders/interdis.htm,

[2]http://www.sbcusd.k12.ca.us/goldenvalley/oknights/msteam
s/crusaders/callwild.htm) mentioned in this chapter for
further ideas on what to include and what not to include.

One such item to include is a menu page. Also, links
to other pages should also be embedded at the bottom of
pages for easy navigation. These are just some examples of
more advance web site construction that comes with further
practice.

Several other possibilities exist from completing the
above methods. The teacher can continue to spend time
developing better and more advanced web pages and
incorporate more web-based lessons. Further, the knowledge
gained from building rudimentary pages can be disseminated
to students. Students too can use the video/manual
combination to learn web page construction. Moreover, when
students are in the process of creating the pages, there
would be a teacher who now understands the fundamentals to
be able to facilitate student learning. Such an action
would be the ultimate aim of any technology project, i.e.,
students learning to use the technology itself through a
teacher who facilitates. In this way, students can be

prepared to face the real technical challenges that await them in the "real world."

Formative Evaluation: Project Observation

It was quite difficult to revise this project based on the observations made on three participants because they provided very little negative criticism. The resounding comment was that the creation of a web site was a lot easier than what they had expected. The participants seem to have minor difficulties navigating through the project, especially in respect to the video-cassette. The only button two of the members asked for help with was the pause (instead of the stop) button.

One of the major hurdles that were unintentional at first was the use of the two created web sites as models. The participants did not think they would ever come close to creating such sites, and it took some reassurances on this observer's part to move the participants forward. As a result of such a reaction, it would now be best to introduce the two web sites perhaps during the middle of the tutorial or at the end. In this way, the learner does not encounter such a daunting task of trying to emulate web sites that they think are too difficult for them to create.

It should be noted here though that after the creation of a web site using the template as described in Lesson 6 of the manual, the participants realized that it was quite easy to create something similar to the models presented. However, the learners' concerns were taken into account since part of technophobia comes from anxieties associated with the inability to perform certain tasks on the computer; hence, it would be a good idea to introduce the sites not at first but at a later stage.

All participants were unsure of the time code aspect, and the directions for that has now been clearly integrated into the manual and in the video. The time code written in the manual and on the video was intended to help participants review the materials presented both visually (the video and manual) and kinesthetically (actual practice). If at any point the participant needed to review a concept such as creating a new page, she or he could easily look at the manual, find the time code, and fast forward or rewind the tape to the appropriate time code for visual instruction on that particular topic.

Another area of concern was the slowness of the video, especially at the beginning. That concern was not taken

into account in the redevelopment of the project for the very fact that the initial snail-paced speed of the video was intentional. Part of the design desire was to acclimate the slower learners so that they would be comfortable with working on the computer, and the slow pace made that a desirable, conducive learning experience. It should be noted though that after the first few lessons, the pace of the video does speed up. Of course, the concept behind that is that once the learner has been acclimated to the learning environment, a faster pace was a good thing. This concept again follows Gagne's "Events of Instruction" where after the initial modeling, the learner is capable of higher-level and faster presentation of material (Overbaugh, 1994).

All three participants were impressed by the inclusion of PowerPoint into the video. The PowerPoint slides served as pre-task lists, and the people involved thought that was extremely helpful in knowing what was to be presented next before they engaged in the task. Of course, listing the objectives is what Gagne had advocated in his theory, and this project very much integrated Gagne's ideas. It should also be noted in this observation report that perhaps one

of the reasons why the participants were impressed by the inclusion of PowerPoint was because of its special effects and transitions; however, this belief may be highly judgmental on the observer's part.

The participants also valued the narration that accompanied the videotape tutorial, and all thought that the same wording used on the tape and the actual written manual was a good idea. One member noted afterwards that sometimes computer terminology differs from one thing to another. Using the same words to describe the same task (such as formatting text), the retention of the material was made easier. It was interesting to see that each participant asked the same question, "Can I have this videotape?" They wanted to use it for future reference.

Another area discussed in the debriefing part of this observation was the applicability of this project not aimed solely at teachers but also at students. Two of the three participants hinted at the idea of using this project to teach their students the instructions in web site creation and asked for permission to do so. One noted that such a project can serve as a learning center where students can be given the same type of access (computer, VCR) and asked

to create web sites. The participants' assessment of the applicability of this project to a different type of audience (students as well as teachers) was briefly explored earlier, and a future remodeling of this project can include some type of student-centered assessment.

The last idea touched upon, which in retrospect is a highly ambitious undertaking, is the creation of a series of training videos such as this one accompanied by a manual for other programs such as MS Word, PowerPoint, Easy Grade Pro (a grade book program), and AVID Cinema (a video editing application). Such a concept is relatively interesting in scope, but that would require many hours of preparation time. However, the teachers noted that such a project would be highly beneficial for teachers and students alike to use to increase their technology understanding. This observer does agree with that last statement but would recommend a team of technology capable teachers to undertake such a massive project.

Overall, the participants were satisfied with the project and thought it would be helpful in their teaching. A few months after this initial observation, two of the participants once again asked for a copy of the videotape

and instruction manual. That type of initiative seems promising in the overall vision of this project, and that is to motivate teachers to use the technology.

CHAPTER FOUR: CONCLUSION

With the heightened demand, perhaps mandate, for technology use, the addition of more computers into the workplace and classrooms, and an ever-increasing Internet presence, teachers must make the move toward Internet and technology integration into their teaching. The benefits of this integration are not only for the teachers themselves but also for those whom they teach. Students must be equipped with the skills necessary for their survival and success in the "real world."

For future teachers as well as current ones, this project should make a small dent into that integration called for by so many. As propounded earlier in the section on "Learner's Characteristics," this project does not discriminate between the experienced teachers or the new ones; it is intended for all. Needless to say, any new teacher should continue to gain as much technological competence as necessary for the betterment of their students, whether they use this project or not in that pursuit. Again, the focus has to be on equipping students with the skills to deal with their future.

As had been called for by the participants in the observational stage of this project, similar projects of this nature should be created to help teachers improve their skills, thus improving the skills of their students. Indeed, a video-tutorial coupled with a written manual on all of the most commonly used computer programs in the k-12 setting should be provided to all teachers. Though there are professional video-tutorial programs on the market, the majority of these only applies to businesses or uses jargon antithetical to the beginning computer user. That has to change in order to accommodate all user levels. Technology departments within school districts should commit staff and funding to creating similar programs for teacher, student, and administrator use.

Indeed, as the government continues to call for high standards in all academic areas through the integration of technology and as more research continues to shed light on the efficacy of computer use, it behooves all teachers to make that move toward being computer literate without the fear of mishandling the technology, especially Internet technology. It also behooves administrators to provide more time and quality training for teachers to get to know

the technology at hand so that teachers may answer the call posited by the government and by the demands of an ever-increasing technology-rich society. Further research should focus on the exact tools that will help allow teachers to use the technology without the associated anxiety, and more time should be integrated into the teaching schedule so that new technology can be explored without the already overburdening bureaucracy and teaching load. Only then can our students, our children, be afforded the quality education they seek and deserve, and only then can public schools meet the educational reforms necessary for their continued, successful survival.

APPENDIX A: INSTRUCTION MANUAL FOR CLARIS HOMEPAGE 3.0

Directions for use: The time code written in the manual and on the videotape is intended to help the user review the materials presented both visually (the video and manual) and kinesthetically (actual practice). If at any point the user needs to review a concept such as creating a new page, the user can easily look at the manual, find the time code which is in bold-face type and bracketed, and fast forward or rewind the tape to the appropriate time code for visual instruction on that particular topic.

Lesson 1: The Basics

Step A: Opening Application [Time Code--1:40]

- (1) Open up Claris Homepage 3.0 (Steps are different for the Mac and PC platform. Open the application as you would any other programs.)

Step B: Saving Your Work. [Time Code--2:10]

- (1) Go to "File" and scroll down to "Save."
- (2) Type a name that is less than 10 letters without any spaces or capitalization (Ex: homepage). Click "OK."
- (3)
 - (a) Find the location where you want to save your work, and save the page to that location.
 - (b) In the Mac platform, click on "Desktop."
 - (c) Double click on "Macintosh HD."
 - (d) Click on "New Folder."
 - (e) Type in a project name (Ex: Project 1).
 - (f) Click "Create."
 - (g) Click "Save."

Step C: Creating a Background [Time Code--3:00]

- (1) Go to "File" and scroll down to "Library." A menu selection is offered including animations, backgrounds, banners, etc...

- (2) Select "backgrounds.hlb." Then select a background of your choosing.
- (3) Move the mouse to the fourth icon (labeled "Use as Page Background" under the background menu bar. Click on it and scroll down to your page name.

Step D: Adding a Title [Time Code--3:50]

- (1) There are two options. You may go to "Format" and scroll down to any of the various heading choices or you can move the mouse to "Normal," click on it, and select one of the heading choices.
- (2) Select "Heading 1." Type your title (Ex: Homepage).

Step E: Formatting Title and Other Text [Time Code--4:25]

- (1) The same word processing procedures used to format text in word processing programs such as ClarisWorks or Microsoft Word can be used in Claris Homepage 3.0; i.e., centering, changing font type or size, and changing font color.

Step F: Inserting Pictures [Time Code--5:45]

- (1) Go to "File" and scroll down to "Library." A menu selection is offered including animations, backgrounds, banners, etc..
- (2) Select "clip_art_misc.hlb." Then select a clip art of your choosing.
- (3) Move the mouse to the third icon (under the clip art title bar) labeled "Insert in Page." Click on it and scroll down to your page name.

Step G: Remembering to Save [Time Code--6:50]

- (1) Go to "File" and scroll down to "Save."

Lesson 2: Arranging Items/Text for Balance

Step A: Creating a Table [Time Code-7:45]

- (1) Press enter a few times to provide space between the title and the table to be created.
- (2) Go to "Insert" and scroll down to "Table."

- (3) Enter the number of rows and columns appropriate for your work. For our case, enter three rows and three columns.
- (4) Close the window and you should see a table under the "Homepage" title.

Step B: Adding More Text [Time Code-8:20]

- (1) If the cursor is not already inside Row 1, Column 1 of the table, click into that cell to place the cursor in it.
- (2) Begin to type any type of text, and format using the same procedures for formatting the title.
- (3) Note: Certain colors provide better contrast, so it is a good idea to use the various colors to see which would fit your background choice.

Step C: Creating Uniformity [Time Code-8:55]

- (1) Select the entire contents of the table.
- (2) Select the color white or any other appropriate color.
- (3) Go to "Style" and scroll down to "Size." Select 5 for a bigger font size.
- (4) Click outside of the shaded area to de-select.

Step D: Inserting Images Into the Table [Time Code-9:20]

- (1) Put the cursor behind the text "Student Work" and push return.
- (2) Go to "File" and scroll down to "Library." A menu selection is offered including animations, backgrounds, banners, etc..
- (3) Select "clip_art_misc.hlb." Then select a clip art of your choosing.
- (4) Move the mouse to the third icon (under the clip art title bar) labeled "Insert in Page." Click on it and scroll down to your page name.
- (5) Add images for the rest of the text in the table using the same procedures described above. See video for review.
- (6) Center the images/text in the table by selecting each cell in the table and using the center tab icon.

Step E: Remembering to Save [Time Code-12:25]

- (1) Go to "File" and scroll down to "Save."

Lesson 3: Creating New Pages and Adding Content Using Icons

Step A: Creating a New Page Within the Project

[Time Code-13:00]

- (1) Go to "File" and scroll down to "New Page." A new untitled page will display. Save it to your project folder. Give it an appropriate name. For our purposes, the page will be named "homework."
- (2) To add a background using the icon, click on the seventh icon from the left situated between a curving arrow and an anchor; this icon is labeled "Document Options" if you place the mouse over it.
- (3) A window with choices for text color and background color will display. Choose the colors compatible with your design and click "Ok."
(Note: You can also select an image from one of your files to serve as the background design. That process will be introduced later.)
- (4) Again, format the text to your liking.
- (5) Push return a couple of times if the cursor is behind the word "Homework."
- (6) Click on the 4th icon from the right that looks like a table with 2 columns and 3 rows.
- (7) Enter 2 columns (this should already be the default) and 5 rows to create a table for your weekly homework assignments. (Note: You can create as many rows as you need to enter information.)
- (8) Type the days of the week in each cell of the first column. Type the assignments in the corresponding cells in the right-hand column.
- (9) Again, format the text to your liking (centering, larger font size, and text color). Use the text icons to increase font size. Remember to select your content first. Also, more text can be added by clicking into the cell and typing.

Step B: Remembering to Save [Time Code-17:10]

- (1) Go to "File" and scroll down to "Save."

Lesson 4: Creating Links From One Page to Another Within the Project

Step A: Selecting the Proper Page for Linking [Time Code-18:15]

- (1) Go to "Window" and scroll down to the bottom where it reads "homepage.htm." This will select that page and make it the page for editing.

Step B: Selecting the Proper Content for Linking [Time Code-18:50]

- (1) Highlight the word "Homework" on the "homepage" page. (Note: If you would like the picture to serve as a link, you can also highlight the image with the word.)

Step C: Creating Links

- (1) There are two ways to create links from one page to another.
- (2) Method 1: After highlighting the content for linking, go to "Insert" and scroll down to "Link to File."
- (3) A window appears asking you to select the file you would like to link to. For our purpose, select "homework.htm." Click "Open." (Note: Essentially what you have just done is created a link from one page to another, and linking is a mainstay of web page design.)
- (4) Once the link is created, an underline will appear.
- (5) Method 2: After highlighting the content for linking, go to the sixth icon from the left that looks like a curved arrow placed between an icon of a wrench and a piece of paper. If you place your cursor over it, it should read "Link Editor." Click it.

- (6) Because a link has already been created, you will see the file name of that link. Here, you can remove the link to practice the second linking method. Click "Remove Link." Then close the window.
- (7) Again, highlight the word "Homework," but this time also highlight the image.
- (8) Click on the "Link Editor" icon (the curving arrow between a wrench and a piece of paper).
- (9) You will see the Link Editor window, but this time the URL is empty.
- (10) Move the mouse over the triangular button at the far right of the URL. Click on the button.
- (11) You will see two options: (a) Link to Recent URL and (b) Link to File. Choose "Link to File"
- (12) Scroll down to the desired file; in our case, "homework.htm"

Step D: Review—Creating a New Page and Creating a Link
[Time Code—19:40]

- (1) Create a new page and title it "extrahelp."
- (2) Create a link from the main page ("Homepage") to the "Extra Help" Page. See video for example.

Step E: Verifying a Link [Time Code—20:25]

- (1) To verify a link that you have created, click on the second icon from the left situated between a pencil and two divergent arrows. If you place your cursor over it, it should read "Preview Page."
- (2) Click on the "Homework" cell; this process should link you to the "Homework" page.
- (3) Go to the "Window" menu and scroll down to "homepage.htm" to go back to the original page.
- (4) Click on the "Extra Help" cell; this process should link you to the "Extra Help" page which should currently be empty.
- (5) Again, go to the "Window" menu and scroll down to "homepage.htm" to go back to the original page.
(Note: You cannot edit [change text, increase font size, add content] in the "Preview Page" mode. You need to revert back to the "Edit Page" mode. To revert back, simply click on the first

icon from the left that has a pencil and piece of paper.

Step F: Remembering to Save [Time Code-21:00]

- (1) Go to "File" and scroll down to "Save."

Step G: Review and Practice [Time Code-21:05]

- (1) Create new pages for the cells entitled "Projects" and "Student Work."
- (2) Create links for them from the homepage.
- (3) Create links on them back to the homepage. Do this also for the "Homework" page and the "Extra Help" page. See video if you need help.

Lesson 5: Wrapping Up the Practice Project

Step A: Previewing in Browser Mode (Explorer or Navigator) [Time Code-24:45]

- (1) Click on the fourth icon from the left that contains a picture of a globe on top of a piece of paper.
- (2) Scroll down to a browser of your liking: either Microsoft's Explorer or Netscape's Navigator.
- (3) This process will allow you to see your web pages as they would appear on the web.
- (4) To go back to your web page for editing, go to "File" and scroll down to "Quit" or "Exit."

Step B: Verifying Links and References [Time Code-25:50]

- (1) Besides manually verifying links which is a good way to sort out your pages, there is also an automatic way to verify all your links.
- (2) Click on the third icon from the right that contains a check mark on top of four boxes linked together in the form of a chart. It should read "Verifying Links and References."
- (3) The application will now check your links and report whether there is a problem with them.
- (4) Click on "OK" once the verification is complete.

Step C: Consolidating [Time Code-26:15]

- (1) Consolidating your work is a good way to make sure that all links, images, and text belong

where they should. Consolidating also helps to put all images, files, and content in the correct folder for you to upload to the web.

- (2) Click on the second icon from the right that contains a picture of three pieces of paper pointing to a folder. It should read "Consolidate."
- (3) The application will now consolidate your files and report whether there is a problem with them. A window will appear that reads "Consolidate media files: at the same level as the HTML File." Click on "Consolidate."
- (4) Click on "OK" once the consolidation is complete.

Step D: Uploading [Time Code-26:40]

- (1) Because you may or may not have access to upload to the District's servers, save your work on a floppy disk or save it to a zip disk if the file is too large.
- (2) Your administrator or a "web master" will upload your files for you.

Step E: Remembering to Save [Time Code-27:05]

Lesson 6: Creating Web Pages Using Templates

Step A: Opening Application [Time Code-28:25]

- (1) Open up Claris Homepage 3.0 (Steps are different for the Mac and PC platform. Open the application as you would any other programs.)

Step B: Selecting the Assistant [Time Code-28:25]

- (1) Go to "File" and scroll down to "New."
- (2) A "New" Window dialog box appears. Select "Use Assistant."
- (3) Select the type of assistants you would like to use. For our purposes, scroll down and select "School Site Assistant."
- (4) Click "OK." A "School Site Assistant" window appears. Read the "Overview."

Step C: Page Selection [Time Code-29:20]

- (1) Click on "Next" in the "School Site Assistant" window.
- (2) Type your school name where it reads school name, or you can type your team name or any other page name.
- (3) Select the type of pages you want for your site. If none are to your liking, select "Other pages." For our purposes, select "Favorite Links" and "Other Pages." Click on "Next."

Step D: Features [Time Code-30:00]

- (1) If you want to include information related to the school, type the address.
- (2) If you want a logo, click on the "Logo" selection box if it does not already have an "X" in it. If you have a logo on file, click on "Set" and find your logo.
- (3) Decide whether you want to have a logo on the top of every page. For our purposes, we will have an address, the provided logo, and a logo on top of every page. Click on "Next."

Step E: Page Names [Time Code-30:40]

- (1) Since we had selected "Other Pages" earlier, it is now time to give those pages names. We already have the "Favorite Links" page. Let's create two more: (1) Class Rules and (2) Assignment Page.
- (2) Type the word "Class Rules" where you see the space after "Page Name." Click "Add." You will see a page added to the already existing page on the left hand side of the window. The link has been created for you.
- (3) Type the word "Assignment Page" where you see the space after "Page Name." Click "Add." You will see a page added to the already existing pages on the left hand side of the window. The link has been created for you.
- (4) Click "Next."

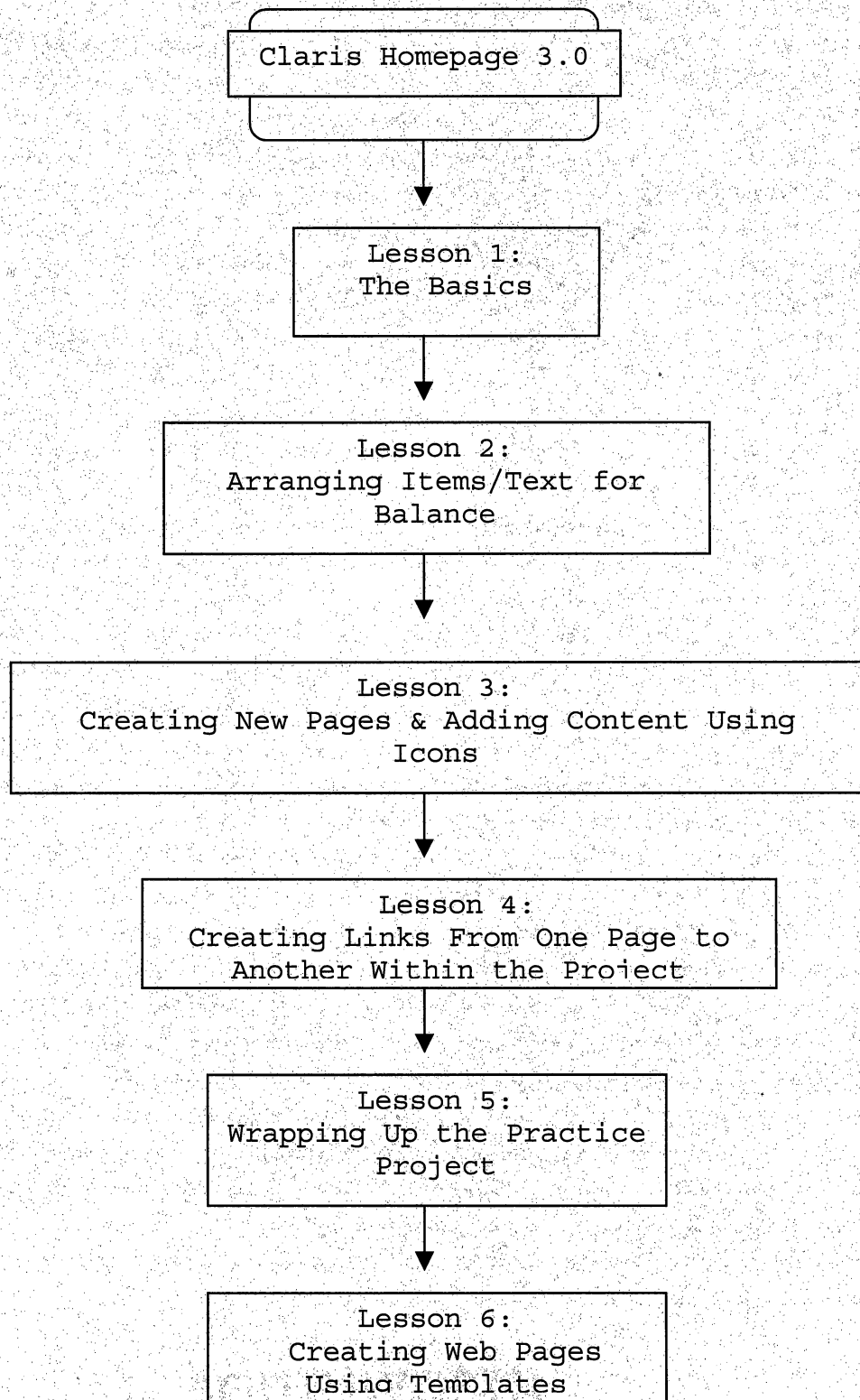
Step F: Navigation [Time Code-31:20]

- (1) The navigation menu allows your users to navigate through your sites. Select "Left" and select "Yes" if they have not already been selected. These are the standard locations for the navigation menu.
 - (2) Click on "Next."
- Step G: Style [Time Code-31:35]
- (1) Style allows you to select the look and feel of your web pages. Scroll down through each style interface and find one to your liking.
 - (2) Click "Next" when done.
- Step H: Information [Time Code-32:00]
- (1) Type your e-mail address if you would like people to be able to contact you.
 - (2) It is standard procedure to leave the box that reads "Date page was last modified" checked, but for our purposes, uncheck it.
 - (3) Click "Next."
- Step I: Summary [Time Code-32:25]
- (1) The "Summary" window allows you to modify any of your previous selections. The "Page Names" to the left indicate the name and number of pages you have selected. The "Style" section in the middle shows the style you have selected. The "Navigation" area to the right shows in blue that you have selected the navigation menu to appear on the left and bottom of all of your pages.
 - (2) Click "Next."
- Step J: Location [Time Code-32:50]
- (1) This is where you will save your template.
 - (2) Click on the button that reads "New Folder."
 - (3) Find the location on your hard drive where you would like your folder to be saved.
 - (4) Type "Project 2."
 - (5) Click "Save."
 - (6) After reading through the next window's information, click "Create."
 - (7) You will see a "read_me.htm" page appear. Ignore this page.

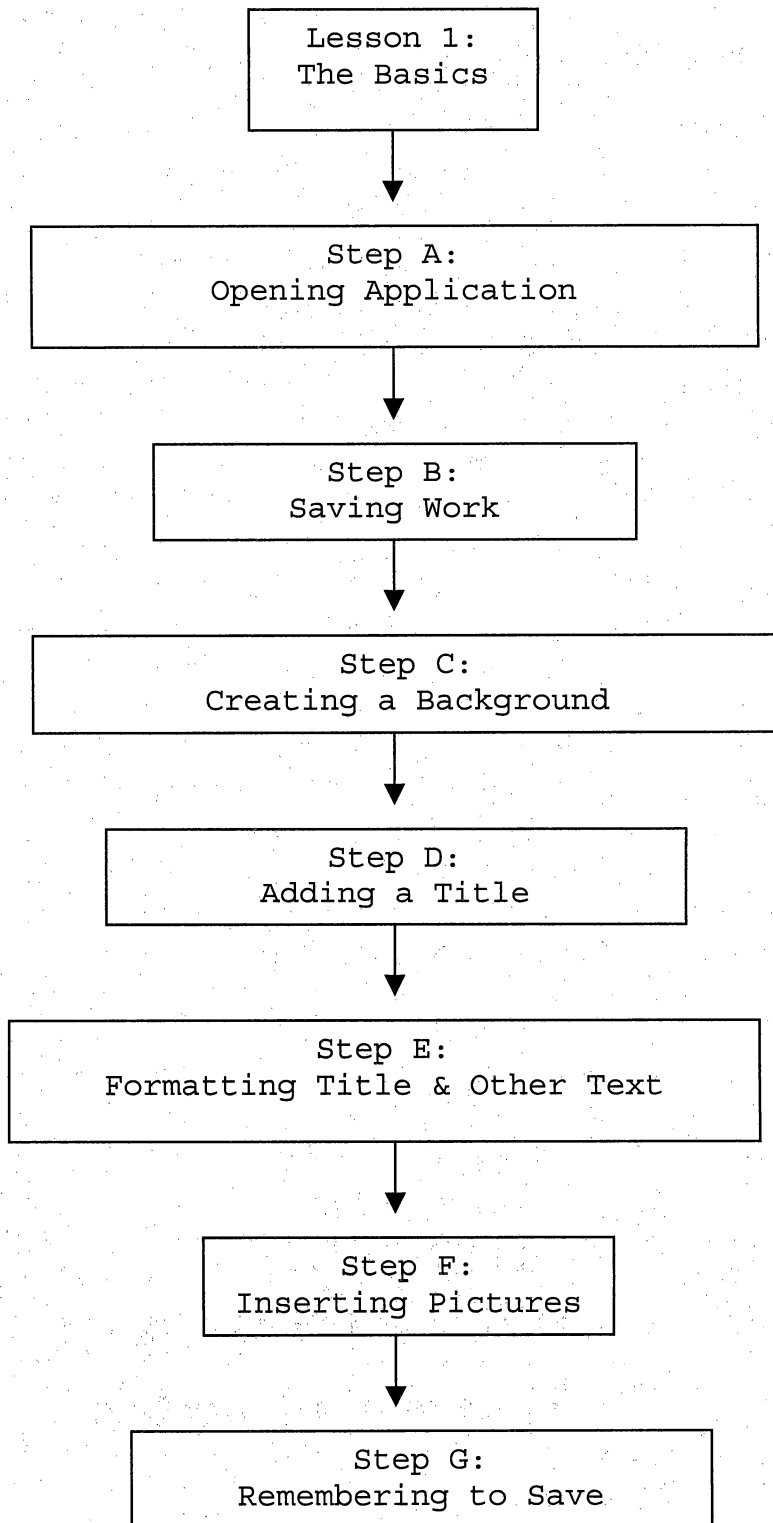
Step K: Finalizing Your Project [Time Code-33:30]

- (1) Go to "Window" and scroll down to "Site Editor-Project 2."
- (2) You will see a listing of your pages. Double-click on "index.htm" to go to your home page.
- (3) You will notice that all links have been created, and that text appears for you to edit over.
- (4) Again, edit as you would incorporating concepts from the earlier lessons.
- (5) When you are done, refer to "Lesson 5: Wrapping Up the Practice Project" to verify, consolidate, and upload you web pages.

APPENDIX B: FLOWCHART OF PROJECT CONTENT



APPENDIX C: FLOWCHART OF PROJECT CONTENT LESSON 1



APPENDIX D: FLOWCHART OF PROJECT CONTENT LESSON 2

Lesson 2:
Arranging Items/Text for Balance



Step A:
Creating a Table



Step B:
Adding More Text



Step C:
Creating Uniformity



Step D:
Inserting Images into the Table



Step E:
Remembering to Save

SOUTHWORTH
PARCHMENT USED
100% COTTON RIBBON

APPENDIX E: FLOWCHART OF PROJECT CONTENT LESSON 3

Lesson 3:
Creating New Pages & Adding Content Using Icons

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graph TD; A[Lesson 3:  
Creating New Pages & Adding Content Using Icons] --> B[Step A:  
Creating a New Page Within the Project]; B --> C[Step B:  
Remembering to Save];
```

Step A:
Creating a New Page Within the Project

Step B:
Remembering to Save

APPENDIX F: FLOWCHART OF PROJECT CONTENT LESSON 4

Lesson 4:
Creating Links From One Page to Another Within the Project

Step A:
Selecting the Proper Page for Linking

Step B:
Selecting the Proper Content for Linking

Step C:
Creating Links

Step D:
Reviewing: Creating a New Page & Creating a Link

Step E:
Verifying a Link

Step F:
Remembering to Save

Step G:
Review and Practice

APPENDIX G: FLOWCHART OF PROJECT CONTENT LESSON 5

Lesson 5:
Wrapping Up the Practice Project



Step A:
Previewing in Browser Mode



Step B:
Verifying Links and References



Step C:
Consolidating



Step D:
Uploading



Step E:
Remembering to Save

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APPENDIX H: FLOWCHART OF PROJECT CONTENT LESSON 6

Lesson 6:
Creating Web Pages Using Templates



Step A:
Opening Application



Step B:
Selecting the Assistant



Step C:
Page Selection



Step D:
Features

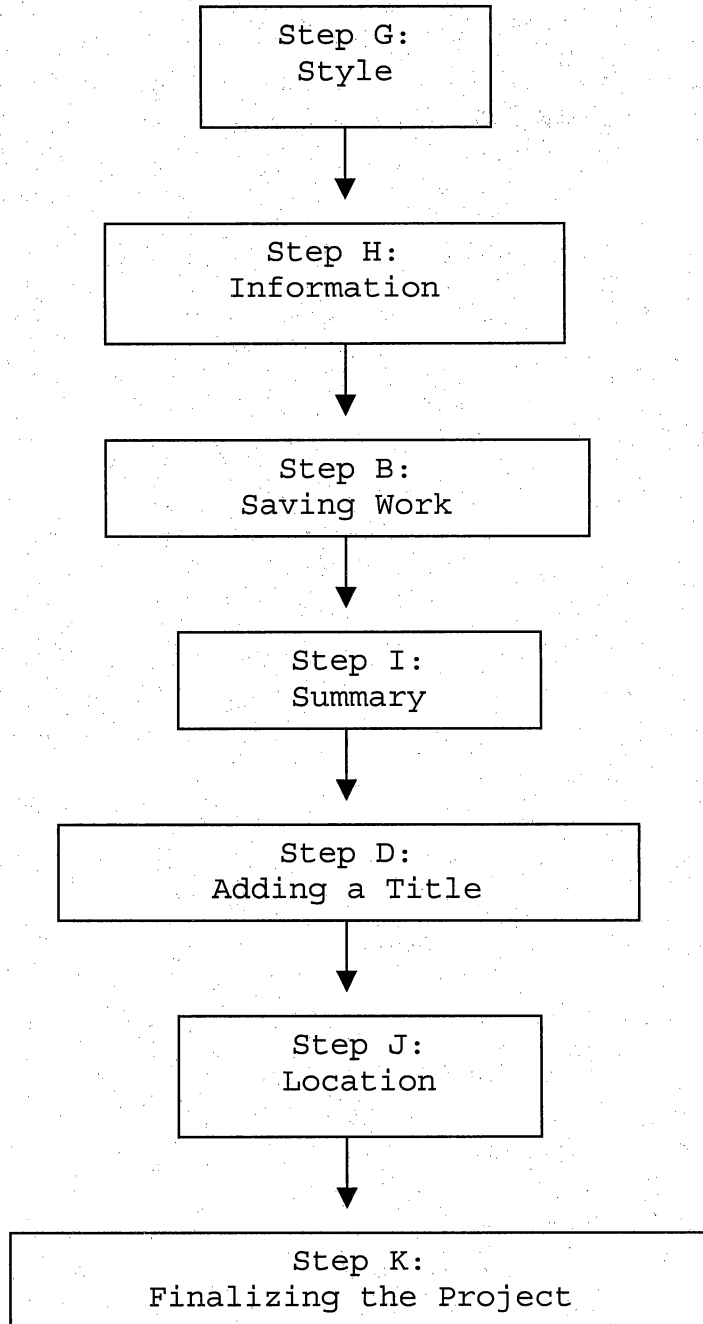


Step E:
Page Names

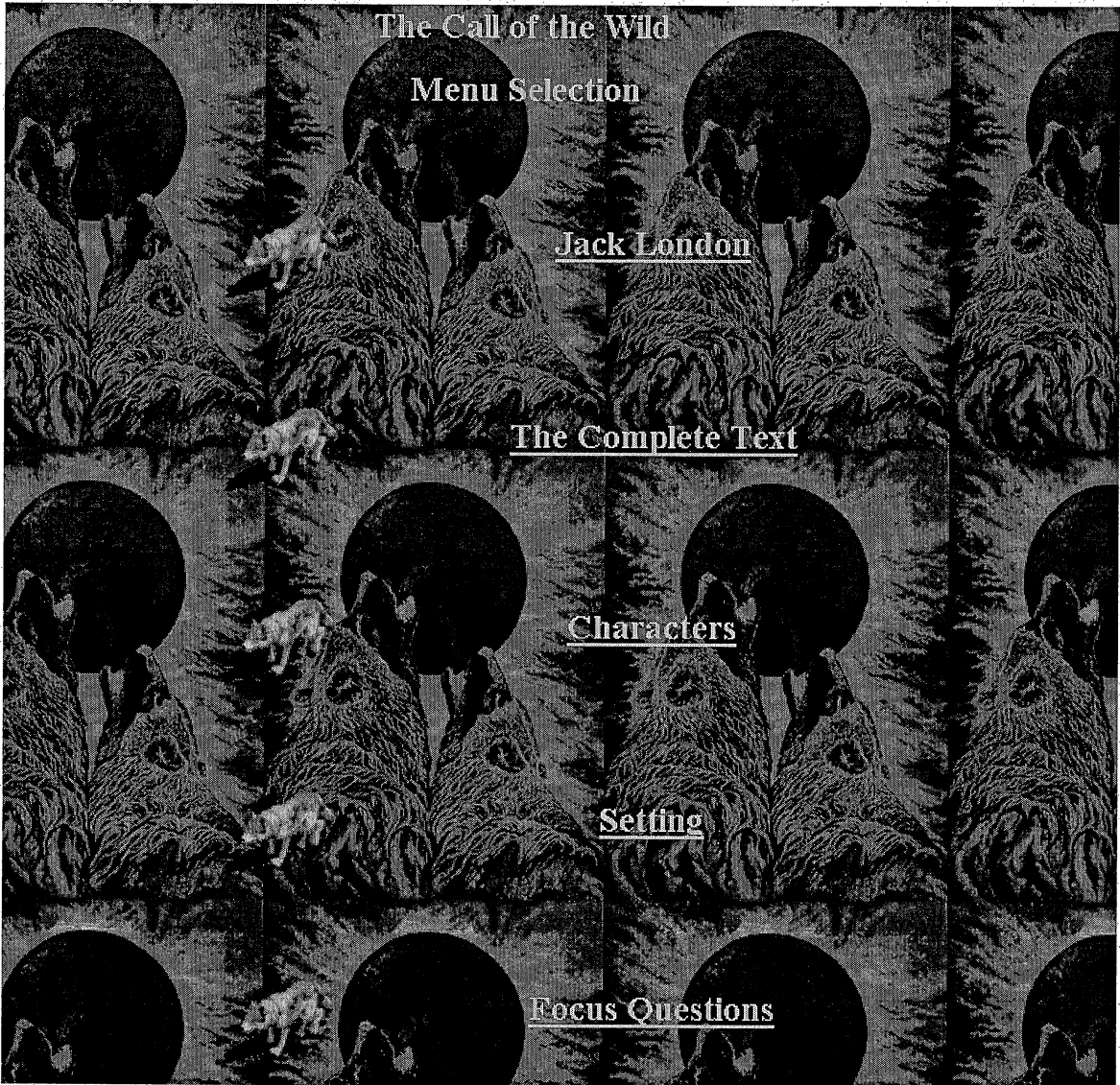


Step F:
Navigation





APPENDIX I: SAMPLE PAGES FROM MODEL WEB SITE
ON THE CALL OF THE WILD





Jack London



The following links will take you to various biographical information on Jack London. After visiting these sites, use your browser's back button (perhaps more than once) to return to this page.



[The Handsome Figure](#)



[The Story of an Eyewitness](#)



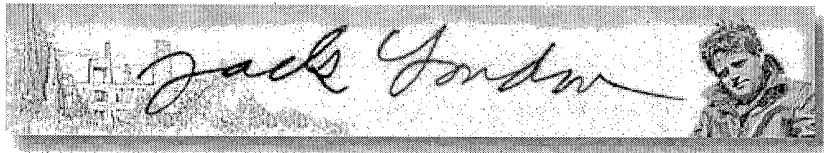
[John Griffith Chaney](#)



[Social Darwinism](#)



[Rather Be Ashes Than Dust](#)

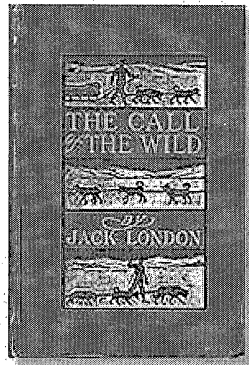


THE CALL OF THE WILD

(Serialized in *The Saturday Evening Post*, June 20–July 18, 1903)

[[Go to London's Writings](#)]

Use a Concordance of this Work (find locations of words, word frequencies, etc.).



- [Chapter 1: Into the Primitive](#)
 - [Chapter 2: The Law of Club and Fang](#)
 - [Chapter 3: The Dominant Primordial Beast](#)
 - [Chapter 4: Who Has Won To Mastership](#)
 - [Chapter 5: The Toil of Trace and Trail](#)
 - [Chapter 6: For the Love of a Man](#)
 - [Chapter 7: The Sounding of the Call](#)
-

Characters

Buck	A dog who is the story's <u>protagonist</u> . What does he really represent?
Judge Miller	A minor character in the overall struggle for Buck's dominance. What does the Judge's lifestyle represent for the protagonist?
Manuel	Another minor character who plays an important role in the story's <u>plot</u> . What does he do to Buck and why does he do it?
The Man in the Red Sweater	Introduced for only a short time, the nameless "man in the red sweater" brutally teaches Buck an important lesson about the law of club. Explain why this initial lesson is important.
Perrault and Francois	Men of the North whose lives revolve around the Yukon gold rush. How does Buck view these two characters?
Spitzenbergen	Also known as "Spitz," this dog plays the role of the <u>antagonist</u> . List some of the events that Spitz engages in that heightens the <u>conflict</u> , or the struggle, between he and Buck.
Curly	A dog who represents Buck's foil. What similarities do Buck and Curly have? What is the one difference between the two that ultimately assures Buck's survival?
Soleks	Known as the "Angry One," Soleks has one passion in life? What is this dog's sole passion?
Billee, Joe, Dave, Pike, and Dub	These dogs round out the rest of the pack. How is their presence important to Buck's development? What is Billee's personality? Which of these dogs face a tragic, but noble, end?
Charles, Hal, and Mercedes	Human characters whose passion for the adventures of the North is rivalled by their ignorance of it. They "were manifestly out of place, and why such as they should adventure the North is part of the mystery of things that passes understanding" (London, 59). How does the inclusion of these characters resemble Buck's plight from the South to the North? What is the one difference, in terms of survival, between the humans and the dog?

Focus Questions

Chapter 1	1. What is it that Buck does not read, and why is this important?
	2. What does Judge Miller's place represent for Buck?
	3. Muzzle, the undesirable acquaintance, undertakes what insidious action?
	4. From whom does Buck learn his first real lesson about the law of club?
	5. Does the color red have any significance?
	6. Which two human characters is Buck introduced to in the North? What type of men do they represent?
	7. What does Spitz/bergen do to Buck which marks their first conflict?
	8. What natural element does Buck discover which he like fire and disappeared with little effort?
Chapter 2	9. "Buck's first day on the Dyea beach was like a nightmare" (London, 15). How is this line representative of Chapter 2?
	10. The "man in the red sweater" teaches Buck the law of club. What law does the fight between Curly and the husky teach him?
	11. What lesson does Buck learn from Soloek, especially when he approaches the "Angry One" from his blind side?
	12. How does buck deal with the cold? What does he learn from the other dogs?
	13. One event which shows that Buck is losing his civilized nature is his resorting to what, especially when he is overtaken by hunger?
	14. What incident causes Buck to despise Spitz even more?
	15. Chapter Two focuses a section on Buck's physical development. Describe this transformation.
	16. What does Buck do at the end of the chapter which shows his true nature?
Chapter 3	17. Buck considered himself king as Judge Miller's place. Contrast that image with the role he has to play under Spitz, the leader of the pack. What does this contrast lead to?
	18. During the driving snow, what does Spitz take from Buck which continues to heighten their struggle?
	19. What pandemonium, or chaos, consumes the camp, forcing dog and man to defend themselves?
	20. During this pandemonium, what cowardly act does Spitz try to do to Buck?
	21. Which dog goes mad as a result of a husky's bite? Again, what does Spitz try to do to Buck during this incident?
	22. In reaching Dawson, what do the pack of dogs playfully do? How does this event lead to the final battle between Spitz and Buck?
	23. Contrast Buck's fighting style with that of Spitz. Who has more experience?
	24. Toward the end of the chapter, Buck almost completes his transformation from what to what?
Chapter 4	25. Who does Francois and Perrault choose to lead the pack after Spitz's departure? Does Buck acquiesce to the decision?
	26. Does Buck prove himself to be a good leader? What evidence might suggest that he is?
	27. What essentially happens to Francois and Perrault, much like all the humans in Buck's life?
	28. What dream sequence does London try to impose on Buck?
	29. Which two laws does Buck finally internalize?
	30. Which dog is portrayed as noble, yet tragic in this chapter? What one mission does this dog want to follow?



Projects



PowerPoint

Create a twenty-slide presentation exposing the major events of the book. Follow the plot diagram presented in class: (1) Introduce the main characters and setting; (2) Highlight the struggles (conflict) of the main character Buck; (3) Specify what the climatic experience is; (4) State the falling action; (5) Remark on the ending. Include representative pictures (use the Internet) and remember to give proper bibliographic information of your sources. Be prepared to present your work in class.

TimeLiner

Using the TimeLiner 4.0 software available on the computers in class, create a time line of all major events. Again, follow the plot diagram (See above entitled "PowerPoint" for more information.) In creating your time line, make analytical remarks of each event. For example, do not simply state that Buck is transferred to the North. Rather, elaborate on that statement by noting that Buck is transferred to the North because of one man's undesirable vice (gambling) and men's greed in trying to obtain a quick fortune which causes the rapid abduction of dogs from the South.

Hyperstudio

Create a ten-slide hyperstudio presentation exposing one major event in the book. Include voice narration, text, music, and clip art. Also, background design should be considered carefully. The content should focus on one memorable event such as the scene where Buck's pack had to fend off the numerous huskies. Hint: Save your work often.

Inspiration

Using the Inspiration software, create a character web for each of the following figures in the book: (1) Buck, (2) Spitz, (3) Curly, (4) Francoise and Perrault, (5) John Thornton, and (6) the man in the red sweater. Make sure to give detailed descriptions of each based on the book. Describe how each contributes to Buck's development in the North, whether the contribution is negative or positive.

APPENDIX J: SAMPLE PAGES FROM MODEL WEB SITE
ON "THE INTERNATIONAL UNIT"



Crusader Interdisciplinary International Unit



Guidelines for Report

Click here to browse through the guidelines for your International Unit report. It's a PowerPoint presentation followed by a few forms that you need to print out.

Scavenger Hunt Questions

Click here to start a scavenger hunt on different facts related to geography and current issues.

Send a Post Card

Click here to send a geographical postcard to a friend or a family member. An e-mail address is required, and if you are a Golden Valley student, make sure to follow the internet usage guidelines. Use your browser's back button to return to this page. You might have to click on it more than once.

Flag Tag From the United Nations

Click here to test your knowledge of flags. It's an online game where you try to match a country with its flag. Use your browser's back button to return to this page. You might have to click on it more than once.

Xpeditions by National Geographic

Click here to go on a virtual tour of the world. Read and explore various fields including the human systems, physical systems, places and regions, and geography. (Note: Allow time for page to load.) Use your browser's back button to return to this page. You might have to click on it more than once.



Objectives



△ To research different aspects (religion, language, geography) of different cultures

△ To research through internet, CD-ROM multimedia, and traditional methods and create a report of information

△ To collaboratively work as a team

△ To learn through an interdisciplinary format

△ To share learning through an International Day Celebration



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