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Exploring creative writing in the middle school classroom via the effective use of multimedia

Nicole Allison Bezi

EXPLORING CREATIVE WRITING IN THE MIDDLE SCHOOL

CLASSROOM VIA THE EFFECTIVE USE OF MULTIMEDIA

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

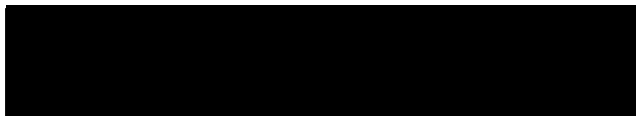---

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ABSTRACT

The paper describes the process of developing a website designed for middle school students. The website facilitates the acquisition and application of literary elements via student authorship of a self-generated creatively written story. This story must exhibit the five major literary elements in their component parts initially, and then upon final completion of the project the students must put all of their component parts together to create an interactive PowerPoint of their story.

Having reviewed literature relating to learning theories, instructional design, and the impact that technology has on writing, this paper also discusses, in depth, the impact all of these topics have had on this project in particular.

The author has also taken web design into consideration, thus making the website user friendly and easily applicable to any classroom.

The resulting website was reviewed by subject matter experts who deem it applicable to the intended audience. At completion of the website design it became evident that the design of this project was very time consuming and exhaustive, however the key to success was identified as

the ability to be flexible. Flexibility allows for

thinking and re-thinking that affords the opportunity for

the successful completion of the final product.

ACKNOWLEDGMENTS

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CHAPTER ONE

BACKGROUND

Introduction

Literature provides a mirror for the examination of
our lives and how we choose to live them within society.
In our understanding of literature we find the stories of
our lives and our imagination. Literature inspires us and
guides us by providing examples of what falls within the
norms of our society, while also providing the opportunity
for imagining what happens outside the boundaries of what
society terms the norm. Literature affords a sense of
uniqueness in one's life that is essential to the human
species. In order to fully comprehend and appreciate
literature, readers must possess a deep understanding of
literary elements that can best be developed through the
experiences of authorship.

Statement of the Problem

In working with middle school students, teachers have
expressed a concern in the number of students who seem to
have difficulty understanding and applying literary
elements. This is a significant problem that faces middle
school students because it affects their ability to break
down a piece of literature into its component parts for

critical analysis. After using the district adopted, state approved literature anthology to teach the definitions of literary elements, a common misconception was noted. The teachers were incorrectly assuming that students understood the concept of literary elements. It was not until the students were required to actually apply what they had "learned" to a piece of literature that the teachers realized that the students' understanding of the required literary elements after using the literature series was very limited. The teachers felt that this lack of understanding came about due to the students' inexperience, lack of examples, and the abstractness of the concepts.

Purpose of the Project

The purpose of this project is to develop a means by which students can improve their understanding of literary elements. This project will aid the students in completing some research as part of the initial stages of the Web Quest, to help them better understand the importance of literary elements. At the outset of the Web Quest, the students will be required to use the provided resources to learn about the different definitions/explanations of each of the literary elements. After becoming very familiar

with the understanding of the role of each literary element in a story, the students will be ready to prove their understanding by synthesizing all of their newly gained knowledge by creating a self-formulated descriptive story. Finally, after creating this story, students are expected to take time to reflect on their work and evaluate the complexity, time, and devotion by researching a few literary awards and assigning their newly created story an award with justification as to why they feel their work deserves such an award.

This project will allow the students to capitalize on their experience by combining their prior knowledge about literary elements with the newly gained knowledge derived from their research. In completing this project, middle school students will be experiencing authorship via creativity and the use of their imagination.

Significance of the Project

Some of the most important literary elements are character, setting, plot and theme. Understanding these literary elements is imperative to the accurate and thorough understanding of a piece of literature. In every piece of literature the reader will come to know the characters. The two different types of characters that are

seen in literary writings are major and minor characters. The major character(s) is the central character of the story. Most, if not all, of the story revolves around this character. The minor characters are the characters that pop into the story to help advance the plot line. Although these characters are important they only appear minimally to help the story progress logically. Setting is the literary element that allows the reader to delve into the time and place that the story is happening. A descriptive setting allows the reader to get lost within the story and really become a part of it. The plot is the backbone or skeleton of the story. It is the plot that lays the groundwork for the details that the author must include to complete the story. Finally, the theme of a story is the underlying meaning of the literature, a universal truth, a significant statement the story is making about society, human nature, or the human condition. A theme is often easily identified because it is the moral of the story or the lesson learned. Since literature plays such an important role in defining how we choose to live our lives, doesn't it seem logical to make sure students understand the importance of literature?

Teachers express lots of frustration in the resources they are provided when it comes time to teach their

students the importance of these literary elements, as well as, their role when it comes to dissecting a piece of literature to gain a deeper understanding of its significance. Currently, many teachers are given a literature anthology that mentions some brief definitions as to the different literary elements and their definitions. The teacher reviews these definitions with the students, but above and beyond the definitions the teachers are not provided any resources for further enrichment or teaching opportunities. So, to further develop the students understanding many teachers have to implement self-created activities to try to solidify the student's understanding of the literary elements. This poses a problem because of the abstract quality of literary elements and the difficulty of sustaining multiple teacher-created resources.

Limitations

During the development of this project, several limitations were noted. Due to time constraints and limited access, the intended audience was represented by a secondary audience. The secondary audience, middle school teachers, were the sole evaluators of the final product. Although this was not the ideal outcome, it did prove to

be advantageous. The secondary users were very familiar with the overall problem, the level of their average learners, their own comfort level and likelihood of use in the classroom, and the content, thus making their input extremely valuable. Since, this website would more than likely be primarily implemented by a classroom teacher; the familiarity of the website to the secondary users allows the author reassurance that it will be used. However, the disadvantage was that the students did not evaluate the project in addition to the secondary users, thus placing immediate limitations on the project.

Assumptions

The following assumptions were made regarding the project:

1. Middle School Students have a basic understanding of the Microsoft Office programs; specifically Microsoft PowerPoint and Microsoft Word.

2. Middle School Students have a basic understanding of the World Wide Web.

3. Middle School Students have access to a computer lab that allows a maximum of two students per station.

4. Middle School Students are able to comprehend, apply, analyze, synthesize, and evaluate the literary elements that apply to literature to further their understanding of how literature affects our lives and the importance of literature.

Definition of Terms

The following terms are defined as they apply to the project.

1. literary elements - major and minor characters, setting, plot, and theme

   a. major character - the central character of the story

   b. minor characters - characters used to help advance the plot line

   c. setting - when and where the story takes place

   d. plot - skeleton of the story; lays the groundwork for the details of the story

   e. theme - the underlying message presented by the piece of literature

2. Learning theories - describe how learning takes place

a. Behaviorism (Skinner) - observable behavior that is developed as a result of a stimulus-response relationship

b. Cognitivism (Piaget) - learner accesses prior knowledge every time new information is presented, thus creating a cognitive link that allows the learner to commit the new information to memory in a meaningful and organized manner

c. Constructivism (Vygotsky) - construction of knowledge based on self discovery and exploration; teacher acts solely as a supporter, not a director of information

3. Hierarchical Organizational Structure - categorize items based on level or rank (McCracken & Wolfe, 2004).

a. Global navigation system that appears consistently on every page of the site and offers navigation options for the entire site (McCracken & Wolfe, 2004).

4. online - connected to the Internet

5. Prototype - "A prototype is a computer rendition of what you envisage the final product will look

like and how it will function" (Alessi &

Trollip, 2001, p. 472).

6.   Rapid Prototyping – "A rapid prototype is one

that is built quickly to get immediate reactions

that can be factored into a new or revised

version" (Alessi & Trollip, 2001, p. 472).

7.   rubric – a set of scoring criteria

CHAPTER TWO

REVIEW OF THE LITERATURE

Introduction

This literature review encompasses three major

topics: learning theories and how they relate to

instructional design, instructional systems design,

specifically, John Keller's ARCS Motivational theory, and

the effect of multimedia on learning. It has been

organized in a way that allows the reader to begin with a

broad overview of the relevance of the proposed project

and moves into a more focused vision as to the importance

of the created website.

Initially this literature review seeks to explore how

learning theories influence and support a teacher's use of

technology. This will be accomplished by analyzing how

learning takes place within three learning theories, how

the various learning theories affect teaching, and finally

how learning theories and teaching interface with the use

of technology. Next, this literature review examines John

Keller's ARCS Motivational theory and instructional web

design as they relate to instruction, content

organization, and navigational structure. Finally, this

literature review focuses on the significant impact

multimedia has had on learning. The literature included in this literature review was carefully selected to support the development of a website that will facilitate meaningful learning of the significant literary elements that are included in every piece of literature.

Learning Theories

How They Relate To Instructional Design

To help clarify the complex topic under investigation, it may be best to explain that there are currently 3 different learning theories: Behaviorism (Skinner), Cognitivisim (Piaget), and Constructivism (Vygotsky). A learning theory describes how learning takes place. The behaviorist theory focuses on observable behavior that is developed as a result of a stimulus-response relationship and then reinforced. The cognitive learning theory focuses on the learner accessing their prior knowledge every time new information is presented to them, using some prior experience to create a cognitive link to the newly presented information, thus allowing the learner the ability to commit the new information to memory in an orderly and meaningful manner. Finally, the constructivist learning theory is purely based on the learners new construction of knowledge

obtained through self-discovery and exploration; whereas,

the teacher acts solely as a support to the learner not a

director of information. So, how do these learning

theories relate to the traditional classroom setting

versus the technology-infested classroom? Well, "the work

of the teacher is to plan and execute a series of

interactions between students and subject matter" (NCREL,

2004, p. 1). Therefore, allowing the students to interact

with the material that is being presented should allow

them the ability to *learn* the information and retain it

for future use, right? This is questionable. North Central

Regional Educational Laboratory argues that

> traditional designs for classroom instruction
>
> are commonly concerned with sequencing
>
> materials, moving from rule to example (or vice
>
> versa), prompting strategies, task analysis,
>
> learning hierarchies, the use of drill and
>
> practice patterns with key content, and,
>
> finally, tests measuring the accurate recall of
>
> key content. It has been noted however, that
>
> this allows for little of the exploration,
>
> reconstruction, and creation of authentic work
>
> products that are emerging as the new basis for

literacy in today's classrooms and other

learning environments. (NCREL, 2004, p. 1)

How Does Learning Take Place According to The Three Learning Theories?

Theorists vary in their understanding of how learning

takes place. Most commonly, a behaviorist would support

the claim that learning occurs by way of a

stimulus-response relationship that evokes a desired

behavior. Although all of the research presents similar

thought processes, there are some subtle differences among

the different articles that discuss the behaviorist

theories. Most of the articles detailing behaviorist

theories assume that a stimulus is *provided* to the

learner, therefore, the instructor must have discovered

the stimulus, well in advance, and identified the expected

response prior to instruction beginning. However, Seels

and Glassgow claim that the "discovery of the relationship

between stimulus and response will *help predict* and

control behavior" (1990, p. 34). This seems a bit

uncertain in comparison to the other behaviorist articles.

This allows for some level of discrepancy in what the

learner's response could be, thus beginning to stray from

the conviction that the behaviorist theory is based on.

Another article by Gagne presented a very important point

in that "an instructor must provide the proper stimulus in order to elicit the proper response. Gagne provided the following example: If a learner is acquiring the ability to answer questions delivered orally in French, then the proper stimuli is orally asked questions in French" (1992, p. 193).

It seems fair to say that since the behaviorist theory is so programmed; if the instructor makes a mistake in delivering the stimulus then the expected response would obviously be skewed. Another prominent factor of the behaviorist theory, notated in all of the articles, was the specification that a behaviorist believes that in order to be scientifically acceptable the learner's behavior must be *observable*. Any unobservable behavior is discounted by this theory. This theory is based on the development of instructional objectives as is the cognitive theory.

Another similarity between Cognitivism and Behaviorism is that they both are affected by external stimuli. The cognitivist theorizes that learning occurs by the learner experiencing external stimuli while actively becoming involved in accessing prior knowledge, connecting the new information that is being presented, to that prior knowledge, and then building a deeper understanding of the

entire concept. Gagne claims that the "acquisition of new
information is based on the previous recall of prior
knowledge" (1992, p. 192-193). This level of learning
requires more active participation of the learner and upon
conclusion the learner reaches a deeper understanding
cognitively. The research portrays similar thoughts among
all of the theorists, however, areas of overlapping or
spiraling begin to be a little bit more apparent in this
theory. One of the articles written by Wildman begins to
extend into the realm of constructivism when he claims
that "learning happens when meaning and comprehension are
constructed by individual learners" (1981, p. 348). A
constructivist claim would be that the learner is the
center of the learning that is taking place. Another
subtle difference between cognitive theory and
constructivist theory is how the learner gains meaning
from the experience. The cognitive theorist provides the
necessary 'new information' for the learner; whereas, the
constructivist helps the learner *create* meaning from
experience. Willis and Wright in their article A General
Set of Procedures for Constructivist Instructional Design:
The New R2D2 Model (2000) claim that the constructivist
lets the understanding emerge (p. 6). A constructivist
might argue that instead of setting objectives in advance,

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the instructor might set objectives throughout the learning process, so that the objectives closely align to the process in which the learner is actively delving into.

How do The Learning Theories Affect Teaching?

Each learning theory has some valid basic principles in relation to the actual learning process. All of the theories have a specific place in the process of gaining knowledge and the active involvement of an educator either as an instructor or a facilitator.

The behaviorism theory seems to align best with skills to be learned at the introductory learning phase. An educator practicing this theory, might explain instructional design as simplified skills, repeated and reinforced, eliciting an educator-prescribed, observable response. In the Seels and Glassgow article they explain in detail that Behaviorism is "programmed learning (Skinnerian) where information is broken down into very small steps. At each step a single new term or idea is introduced and material previously covered is reviewed" (1990, p. 34). Although, Saettler (1990) also touches on this same belief, one of the downfalls of the Ertmer and Newby (1993) article is that they don't specifically mention the simplification of the process of instructional design for this theory.

The cognitive approach to instructional design differs in that there is oftentimes a sequential set of steps to be followed in order to obtain the required response from the learner. One step especially important to this design is that of relating prior knowledge to the newly presented information, so as to help ensure assimilation of the new information. With relation to this, Ertmer and Newby (1993) brought up a very valid and important point that was not addressed in the remainder of the articles. Ertmer and Newby (1993) point out that as an instructional designer "understanding that individuals bring various learning experience to learning situations can impact learning outcomes" (1993, p. 61). Since every learner assumes different relationships with their prior knowledge of a subject, it must be acknowledged that the newly presented material may or may not be retained in the manner in which the instructional designer intended it to be. Another very important aspect of instructional design in relation to the cognitive theory is that of the instructor's delivery strategy. All, but one (Wildman, 1981) of the articles fail to mention that the delivery strategy can strongly affect whether or not the desired outcome is achieved.

As a constructivist the instructional design process focuses on the educator acting as more of a facilitator of self-discovery and a support for the student's newly constructed knowledge. Newby and Ertmer (1993) expands on this idea of the educator being the facilitator; however, Willis and Wright (2000) portrays a somewhat different image of the theory. These two articles are written from very different perspectives within the same thought process. Willis and Wright devote less time to the actual involvement of the educator and focus more in depth on the actual process of designing instruction with the user being the center of the design while continuously being open to changes in *the plan*. The Willis and Wright article emphasizes the importance of doing qualitative research by way of interviewing and "becoming immersed in the activities of the people being studied" (2000, p. 13). In reading the articles it seemed that Ertmer and Newby (1993) lent more to the realism of a classroom, whereas Willis and Wright (2000) seemed better fit for upper education or even the corporate world.

How do The Learning Theories Affect The Use Of Technology?

Behaviorism techniques can be implemented by way of programmed instruction, as previously experimented with;

however the results of this type of program are variable. If such a strategy is used, the best way to implement it is through the use a computer program that offers the learner immediate feedback upon completion of a task. For example, a common behavioral computational skill is referred to as drill and practice. This type of program reinforces specific skills while providing immediate feedback as to whether the student is successful.

For the cognitivist the use of many different types of technology make learning more visual. Some instructional designers may choose to use colorful overheads and projectors while other may choose to use the computer as a tool to relay the information to the learner.

The constructivist takes on yet a different approach with the use of technology. The constructivist focuses on the use of technology to create simulated environments for the learners to construct and create knowledge by means of exploration. In order for this type of learning to occur it is important that there is buy-in and participation by all parties involved. Since this type of learning occurs via the personal creation of meaningful knowledge, the active learner must find reason in creating new knowledge.

The completion of this research reflects the varying
techniques of dispersing information to different
learners. It also seems to clearly portray that as
children progress through their educational career they
will evolve as thinkers and learners. It seems to me that
the art of learning is discovery; therefore, the
constructivist view of learning is the most closely
related to the broadest definition of instructional design
and seems the most appropriate for the development of an
interactive website. An interactive website allows the
students the freedom to interpret information and create
their own meaning from that information while displaying
the synthesis of it by creating a piece of work they can
call their own.

Alessi and Trollip (2001) claim that the use of
programs that allow the reinforcement of newly gained
knowledge by allowing the student to interact with the
program via constructing something moves toward the
validation of the learning process for the learner.

Instructional Systems Design

John Keller's Attention, Relevance, Confidence,
    Satisfaction Motivational Theory

Since education in this day and age is driven by both
national and state derived standards, it is imperative

that all instruction be centered on objectives that have been attained via the standards. However, national and state standards are not the only means of developing an effective unit. Learning is a complicated task that consists of much more than a standards-based curriculum and a group of learners. The ability to learn is based on factors such as learning environment, materials available, instructor, and motivational interest. If learning is to occur there must be some sort of meaning associated with the task that is to be completed and the learners that are expected to complete the task. Motivation is a key ingredient in the learning process.

John Keller's ARCS Motivational theory consists of the following four major components: attention, relevance, confidence, and satisfaction. According to Keller 1999 these four components make up a significant part of the learning process for the students involved. "Four steps for successful adherence to the ARCS model are (1) analyze the audience and develop a motivational profile, (2) define motivational objectives, (3) design a motivational strategy relevant to the audience, (4) test and modify strategy as necessary" (Driscoll as cited in Fernández, 1999, para. 6).

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Attention. Keller (1999) explains that attention can be gained in one of three ways. One of the ways the ARCS model seeks to gain the attention of the pupil is by meeting their perceptual arousal. Perceptual arousal is explained as, "gaining and maintaining student attention by the use of novel, surprising, incongruous, or uncertain events in instruction" (Carr & Carr, 2000, p. 1). Gaining and maintaining the attention of a group of learners allows for the initial interest in the topic being presented. The way in which the instructor chooses to arouse the perceptions of his/her audience determines whether or not the learners continue to be engaged in the lesson. A more constructivist approach in which to gain the attention of the learners is to use what Keller refers to as inquiry arousal. "Inquiry arousal stimulates information-seeking behavior by posing, or having the learner generate questions, or a problem to solve" (Carr & Carr, 2000, p. 1). The inquiry arousal approach encourages the students to begin thinking on multiple different levels. The nagging of the question will gain and maintain the attention needed for the instructor to proceed with an attentive audience. However, if this approach doesn't fit into the schema of the lesson that is being prepared, Keller also professes that varying the elements of

instruction has the ability to maintain student interest as well.

Relevance. Relevance, the second stage to the ARCS Motivational Theory can be accomplished in one of two ways, familiarity or goal orientation. Familiarity is when one "adapts instruction, using concrete language, examples and concepts that are related to the learner's experience and values to help them integrate new knowledge" (Carr & Carr, 2000, p. 1). This seems common knowledge in that if one is familiar with something he/she is more likely to retain the additional information that is presented. If the familiarity of the concept is minimal the instructor might wish to approach the students with ARCS goal orientation. "Goal orientation provides statements or examples that present the objectives and utility of the instruction, and either present goals for accomplishment or have the learner define them" (Carr & Carr, 2000, p. 1).

Confidence. Once the instructor gains and maintains the attention of the student audience and proves the relevance of the topic that is being discussed, it is time to build the students confidence in the tasks that they are expected to complete. Keller (1999) explains that there are three ways to build this much-needed confidence.

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One way to encourage students to become self confident is by providing the objectives and rubrics for the tasks. Once the students have access to these to pieces of information, they are much more likely to be able to expect success at completion of the project. Suddenly they have been provided valuable information on which to base their performance and cognitive ability. Another way to build confidence is by differentiating instruction to better meet the needs of the students. An instructor might provide what Keller refers to as a "challenge setting which provides multiple achievement levels that allow learners to set personal goals or standards of accomplishment, and performance opportunities that allow them to experience success" (Carr & Carr, 2000, p. 1). If this is not an option based on the format of the lesson then Keller also recommends attribution molding. "Attribution Molding provides feedback that supports student ability and effort as the determinants of success" (Carr & Carr, 2000, p. 1). Feedback that is provided throughout the learning process allows the students to constantly work on revisions that enhance the final product at completion.

Satisfaction. At the completion of the project the students should feel a sense of satisfaction having

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followed this theory. Keller claims that positive consequences provide feedback and reinforcements that will sustain the desired behavior of the learner (Carr & Carr, 2000, p. 1). One way in which to accomplish this is by using rubrics that the students have access to throughout the entire project. This provides a reference point for the students to check the accuracy of their progress against. Another way to achieve satisfaction is by "maintaining consistent standards and consequences for task accomplishment" (Carr & Carr, 2000, p. 1). This is what Keller refers to as "equity."

The ARCS model helps learners understand why their learning is important to them. After all, "learners must be drawn into a learning experience before learning can occur" and the ARCS model has been developed in such a way that makes this possible (Fernández, 1999, para. 9). The ARCS model helps the normally uninterested student begin to justify his/her purpose in learning. As John Keller once said, "The fuels of enthusiasm and growth are curiosity and challenge" (1999, para. 1). The design of a website that seeks to draw the learners in would provide the much needed link to fuel the enthusiasm of the learner. The hook that is developed through the use of technology stimulates the motivation for learner

achievement and careful creation of a well-rounded piece of work that allows for a sense of pride upon completion.

Web Design

As an instructional web designer it is imperative that one look at two basic principles: content organization and navigational structure.

Content Organization

In the text <u>User-Centered Website Development: A Human-Computer Interaction Approach</u> by D. McCracken and R. Wolfe, it is clearly stated, "A big challenge in creating any website is to organize its information in such a way that it is useful and meaningful to users. Good content organization creates the foundation for effective navigation and is crucial to the success of the site" (2004, p. 59). Oftentimes when people visit websites they are unable to find what they are looking for, thus causing them to forfeit the website search and try something else. One way in which to avoid this result according to McCracken and Wolfe is to use what they refer to as organizational systems with controlled vocabulary (2004). Simply stated organizational systems allow the web designer to place information into categories and then establish some sort of relationship between those

categories so that the user is more likely to find the website user-friendly.

Visual Organization

There are four principles of visual design: Proximity, Alignment, Consistency, and Contrast. These principles must be considered when, designing a website that will be visually attractive to the proposed user according to McCracken and Wolfe (2004). "Proximity means that things that appear close together are related" (McCracken & Wolfe, 2004, p.85). When items on a webpage are placed close together the user automatically assumes that those items are related. McCracken and Wolfe also mention that "it isn't just that you should group similar things together; you should separate them from things that are different" (2004, p. 85). Following this principle of proximity eliminates confusion among users thus ensuring the re-visitation of the website again. The second principle of visual organization is alignment. There are four ways in which a designer might choose to align the items in the webpage: right, center, left, or justified. Although a user may come across different website with any of the four alignments, McCracken and Wolfe make strong recommendations for the development of a user-friendly website. Some mistakes in alignment are unforgivable.

McCracken and Wolfe caution the web designer of the
following:

- Right alignment should seldom be used with
  bodies of text (p. 87).

- Centered alignment is the weakest type of
  alignment. It always creates a bad impression
  that something looks *almost* aligned (p. 88).

- Justified alignment – it is best to avoid
  justified text alignment on Web pages because of
  the way different web browsers resize (p. 89).

Instead of making these deadly mistakes in design the
authors suggest that a web designer consider using
alignment in the following manner:

- Left alignment is a safe use of alignment. It is
  also the most common among web designers
  (p. 87).

- Right alignment should be used minimally. On the
  web it is usually used for variety; to attract
  attention by its novelty (p. 87).

- Centered alignment is most commonly used for
  headings (p. 87).

- Justified alignment is rarely used in website
  design because of the "strange things [that]

happen when the user resizes the browser window"
(p. 89).

"When starting out in the area of visual
organization, the easiest and most effective way to use
alignment is to choose a single alignment style for the
whole page" (McCracken & Wolfe, 2004, p. 90).

Another element of visual organization is consistency
according to McCracken and Wolfe (2004). Consistency is
the agreement or natural coherence among things or parts.
Therefore, consistency within a webpage would show the
relationship among different parts. One way in which this
relationship is shown effectively is via alignment. If a
website has consistency, McCracken and Wolfe (2004) claim
that the user should be able to answer the following three
questions immediately upon entering the website:

- Where am I?

- How did I get here?

- Where can I go from here?

One way in which to remain consistent is to be sure
that the "location information appear(s) on every page of
the site, in the same place and in the same style" (Nolan,
2001, p. 1).

Navigational Structure

According to Alternate Vision Designs (2003, para. 1) navigation must serve the following purposes and consider end users:

- Navigation must allow easy access to all pertinent information on the website

- Site Navigation systems must serve as the primary organizational structure of the website"

Navigation Structure Systems

A navigational system is derived by creating a visual model of the organization of the website that is being designed. This visual model usually has an identifiable structure. One such structure is hierarchical. Hierarchical navigation systems allow the web designer to visually see the relationship between the layered pages. However, according to McCracken and Wolfe (2004) hierarchical navigation in its simple state is rather limiting. Features that make hierarchical navigation more powerful and flexible are commonly known as, global navigation systems and breadcrumbs. The global navigation system "appears consistently on every page of the site and offers navigation options for the entire site," while "breadcrumbs display a record of links that the user clicked in the process of traveling to the current page"

and are usually used in sites that have three levels or more (McCracken & Wolfe, 2004, p. 106).

Navigation Bars

"A navigation bar is a collection of links that are grouped together on a page" (McCracken & Wolfe, 2004, p. 112). Navigation bars are used in website design to allow the user the ability to move throughout the site in a meaningful manner. Navigation bars might appear on the left hand side of the screen, the bottom portion of the webpage or at the top. According to McCracken and Wolfe (2004, p. 116) "a recent study asked inexperienced and experienced Web users about where they expected to find various navigational elements on a Web page. The vast majority of both types of users expected the "home" link to be in the upper left corner or at the bottom center of the page. They also expected the links that are internal to a site to be on the left side."

Navigation bars are also textual, graphical, or a combination of both. Textual navigation bars are clear, coherent language that explains where a link is going to take the user. Although they exhibit enormous appeal, graphical navigation bars oftentimes are misleading, not to mention, "take longer to download than text" (McCracken & Wolfe, 2004, p. 112).

Effective Navigation (At The Page Level)

McCracken and Wolfe (2004, p.118) clearly state, "Be careful that no text field forces the user to scroll horizontally, because users don't like it." This feature is similar to that of having to flip a paper back and forth, from front to back in order to read a comprehensive piece of text. Horizontal scrolling is a major error in website development that needs to be omitted whenever possible.

Since web design is an essential part of constructing a tool to enhance the learning experience, the study of content organization, visual organization, and navigational structure are extremely important. Having a clear understanding of the characteristics of a user-friendly website allows the developer a higher likelihood of success upon completion of the final product.

Effect of Multimedia on Learning

Instruction is the basis for learning. According to Gagne (1992) the "events that make up instruction function to aid or otherwise support the acquisition and the retention of whatever is being learned" (p. 187). Since learning is such a complex process there are many

different ingredients that play an active role its progression. According to Alessi and Trollip (2001) some of the supporting features of learning are motivation, encoding, and retention (use) of the knowledge.

Motivation is a key component to learning as mentioned previously in this chapter. Alessi and Trollip (2001) explain that "a lesson may be perfectly sequenced and worded, yet still fail to teach when learners become bored" (p. 27). Boredom allows the mind to begin to wander, thus permitting the elimination of the material that is being presented by the instructor. With the omission or tuning out of the offered instructional materials/data the learning process has come to a screeching halt.

Encoding and retention of knowledge is another key component to aggressive and attentive learning. "Encoding and retention can be facilitated through the use of organizers that can include advance organizers, diagrams within the program, and summaries at the end. Encoding and retention are also facilitated by good organization and sequence" (Alessi & Trollip, 2001, p. 166). Once newly gained information is organized or placed in some sort of outline, it is much more likely that the "learners" can make sense of the newly gained knowledge; thus beginning

to make connections to previously learned concepts, and continue the complete cycle by filing the new information in long-term memory for future access.

The ability of a student to be able to use the knowledge that has been gained from a lesson taught moves the learner into a category of higher level thinking. Alessi and Trollip (2001) proclaim that the "use of knowledge is best enhanced *by* using it, so interactions for *practice, exploration,* and *construction* best enhance the future use of knowledge" (p. 166). Specific to the use of technology Baines and Kunkel (2000) address the demands of society by mentioning that "access to and use of computers during elementary and secondary education can provide students with an important knowledge base..." (p. 19). Neo and Neo (2001) suggest that multimedia oriented projects further develop students' ability to become creative and critical thinkers and analyzers, as well as problem-solvers.

The constructivist approach accommodates the teachers' desire for an open ended, problem-solving type of learning environment. Open-ended learning environments allow students to foster ideas that they might have otherwise been guided away from. Open-ended learning environments also allow students the opportunity to be

active participants in the acquisition of new information.
Jonassen (2000) refers to what he calls mindtools as a
learning tool often used in this type of environment.
According to Jonassen, mindtools help students transcend
mental limitations and computers serve as extensions of
the mind (Leavitt, no date, p. 1). According to Alessi and
Trollip (2001) "mindtools generally [tend to promote]
collaboration, active and constructive learning, and are
used in authentic learning contexts" (p. 309).

Since constructive learning is such a complex
process, experts are always looking for ways to become
more knowledgeable about improving it. One way in which
education seems to be evolving quickly is in the use of
multimedia. Alessi and Trollip (2001) profess that "the
process of the learner *building* the program is a
constructivist one" (p. 318). They continue to explain
their premise behind this belief as follows: "The
acquisition and structuring of a program requires great
familiarity with content and so stimulates learning. The
requirement to incorporate what has been learned into a
structured environment, such as a multimedia program,
forces the learner to think carefully about all aspects of
the content and the relationships between them" (p. 319).

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Having students create their own sophisticated piece of work to demonstrate understanding of a concept allows the student to validate, not only for the instructor, but for his/herself, how well the information has been assimilated. "Multimedia has the potential to bring a topic to life in ways that a pure lecture and discussion format never could" (Baines & Kunkel, 2000, p. 20). Baines and Kunkel (2000) also mention how the world is ever-changing and in such a time literature must also change. "...in order to keep literature, language and composition relevant – you must reformulate some of your lessons so that they engage students where they are, deep in the vortex of electronic media..." (Baines & Kunkel, 2000, p. 20).

The literature important to the project was presented in Chapter Two as a basis for design. It has been determined, based on the completed research, that the project will seek to exhibit the following characteristics. First of all, the constructivist theory will be implemented because it requires students to access their highest levels of learning while using exploration. Students will complete this task by using provided resources to accomplish the requirements and expectations of each task while monitoring their progress via frequent

rubric cross-referencing. Since the ARCS model has proven
to be a motivating factor in the likelihood of student
learning it has also been decided to incorporate the
theories supported by this model in the instructional
materials design. By doing so, the student's interest
levels will peak, thus leaving no room for anything but
pride at the conclusion of the project. It has been
determined that a website will be constructed to relay the
information and the website design will align closely with
the expert suggestions referenced in this chapter.

CHAPTER THREE

PROJECT DESIGN PROCESSES

Introduction

This chapter details the design and development of a website created to teach middle school students certain literary elements through experiencing the writing process. The design process used involved analysis, design, development, implementation, and evaluation. The analysis portion of the project design was based on meetings with a focus group made up of adult middle school teachers (see Appendix B), examination of content specific California state standards, and in depth discussions with subject area experts. During the analysis phase of the project the needs of the students were determined, thus providing the opportunity for goals and objectives to be formulated. After the design and development of the initial website, the focus group met to implement it and provide feedback for improvements. Such suggestions were implemented and upon final changes, the focus group met one final time to evaluate the final version of the website for the purpose of this thesis project.

Analysis

In order to find out the needs of the middle school students, questions were derived as a basis for discussion while meeting with the focus group (see Appendix C). These questions provided information that led to the design of the website.

First of all, it was determined that the website would be designed for middle school students with varying levels of technological competency. Secondly, focus group meetings identified that one significant problem that faced middle school students was their ability to break down a piece of literature into its component parts for critical analysis.

The purpose of the website was to teach middle school students how to break down a piece of literature into its component parts and then put those parts together to make a complete and cohesive story. Focus group meetings determined that the website had to include sections that detailed the literary elements that intertwine to make up a piece of literature, in order for the students to compose their own story.

After discussing the needs of the middle school students with the focus group, it was decided that the website should detail the requirements of each task, as

well as, provide direct links to resources. This would begin to solidify the students understanding of each literary element in every piece of literature, while giving them the opportunity to then extend what they learned from doing their research, by creating their own version of the given literary element. During one of the focus group meetings, one of the teachers brought up a very relevant point with regard to the format of the website. Upon discussing the likelihood for student buy-in, there was mention of making a "game" using literary elements. Although students buy-in is of utmost importance it was the author's intent to make this instructional yet interesting. Therefore, upon further discussion, it was determined that a game-like adventure could be incorporated while eliminating the limitations of a game that has a starting and ending point.

Design

Using the analysis as a guide in building this website, several things were considered. An understanding of the way in which middle school students learn, content specific discussions with experts, and national and state standards, were integrated into the design and development of the project based on analysis results.

Learning Styles

Since all learning happens through learner interaction with content, it was necessary to look at what might be the best learning style for this audience. Principles of instruction that guided this design included having students access their prior knowledge to create a cognitive link to the newly presented information, committing the newly gained information to memory in an orderly and meaningful manner, and in the final stages of the project, proving the ability to employ the information that they obtained and apply it in the creation of their self-created short story. This final project would allow the students the opportunity of self-expression and self-discovery while keeping them motivated through the means of technology.

Website Design Features

Having analyzed the needs of the middle school students, a general content structure design plan was developed (see Table 1 and Figure 1).

Table 1. Outline of Content Structure Design Plan

```
   1. Site outline
      a. Home page
         i. Web Quest introduction
        ii. Repeating navigation bar on left side
            1. Home Page
            2. Web Quest introduction
            3. Tasks
               a. Task 1
                  i. Explanation of task 1
                 ii. Include useful links to help focus
                     student research on the Internet.
                iii. Include same navigation bar on left
                     side
               b. Task 2
                  i. Explanation of task 2
                 ii. Include useful links to help focus
                     student research on the Internet.
                iii. Include same navigation bar on left
                     side
               c. Task 3
                  i. Explanation of task 3
                 ii. Include example of a completed project
                iii. Include useful links to help focus
                     student research on the Internet.
                 iv. Include same navigation bar on left
                     side
               d. Task 4
                  i. Explanation of task 4
                 ii. Include example of a completed project
                iii. Include useful links to help focus
                     student research on the Internet.
                 iv. Include same navigation bar on left
                     side
               e. Task 5
                  i. Explanation of task 5
                 ii. Include example of a completed project
                iii. Include useful links to help focus
                     student research on the Internet.
                 iv. Include same navigation bar on left
                     side
            4. Evaluation rubrics
               a. Include links to all relevant rubrics
               b. Include same navigation bar on left side
            5. Conclusion
               a. Include same navigation bar on left side
            6. E-mail contact to instructor
               a. Include same navigation bar on left side
```
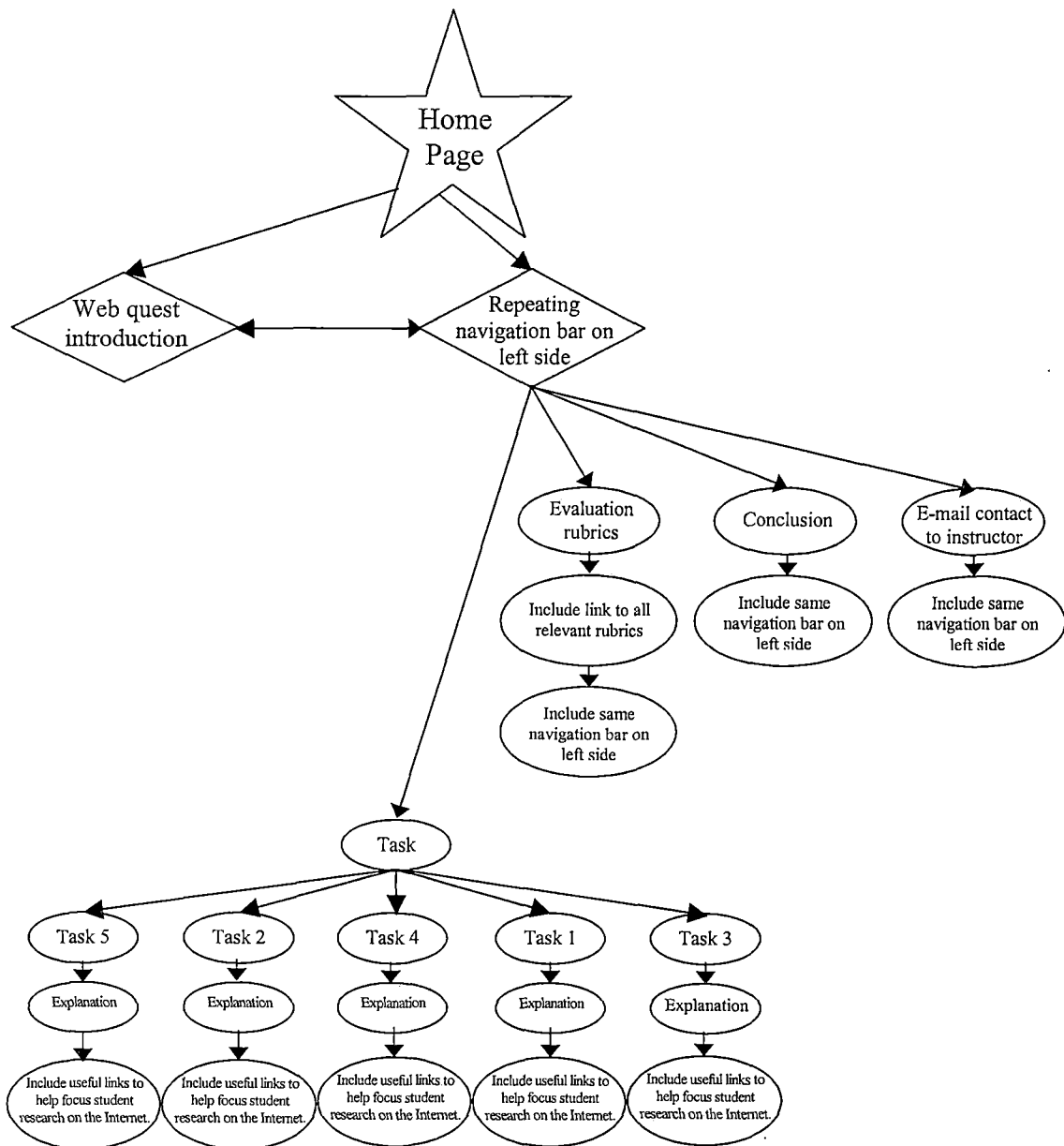
Figure 1. Graphical Outline of Website Design Plan

Design of the actual website began by working
backwards to create an overall web adventure that
simplified the final product into multiple mini tasks.
Each task included an introductory explanation of what the

students would be researching; several links to resources that would help them better understand their purpose, and the required assignment showing the application of the newly gained knowledge. A student would be expected to access each task by clicking on the link labeled Task 1, Task 2, etc. Upon linking to the task page the students would read the introductory paragraph, make note of their required assignment, and then access the resources to gain the necessary information to successfully complete the task. Since the preliminary tasks are preparatory for a culminating activity, these initial tasks would not be taken as part of the student's grade. However, when completion of the culminating task occurs, the students will be graded based on the rubric. Since the rubric will be made available for student access through the entire project completion, the students will be fully aware of the requirements and expectations of the designer.

Instructional Objectives

The instructional objectives (see Appendix D) of this project are aligned with the standards that have been developed by the Department of Education for the state of California (see Appendix E). These objectives were derived by cross referencing California state standards, middle school student needs resulting from the focus group

discussions, and Etiwanda School district standards. The website that was designed to accomplish these objectives requires some minor preparation by the instructor prior to beginning (see Appendix F) this detailed endeavor.

Literary Elements. Literature is the compilation of all of the following literary elements: characters, setting, plot - including climax and resolution, and theme. Formatting the website to include individual task pages afforded the students the opportunity to visualize each literary element exclusively before intertwining them to create the end product. It also allowed them the opportunity to experience authorship via creativity and the use of their imagination through the creation of a self-written short story. To add a little twist to the instructional features of the website, intending to incorporate a game-like attribute, the incorporation of one or more branches in the self-constructed story allowed for variety in the different choices the character made as the story progressed. The addition of buttons allowed the participants the opportunity to "play" with the project and alter it in ways that they never thought possible. Clearly the objectives of this website illuminate the importance of literary elements while allowing middle

school students a unique and experiential way of learning about them.

Keller's Motivation Model

The process experienced through completion of this project strongly relates to the John Keller Motivational Theory. In the subsequent paragraphs the ARCS model is explained as it relates to the project in question.

Attention. In accordance with the ARCS (attention, relevance, confidence, and satisfaction) model, this project gains the attention of the audience by reaching perceptual arousal, inquiry arousal, and variability. Since perceptual arousal includes gaining the attention of the audience by using surprising events in instruction an audio story book hook has been placed on the title page and is set to play upon loading of the page. By asking open ended questions such as, What makes great literature? What makes a story creative? What are literary elements?, inquiry arousal has also been implemented. Variability is the process of maintaining student interest by varying the elements of instruction. This project seeks to maintain student interest and avoid frustration by sharing different student examples of the expected outcome.

Relevance. The relevance of the project shows by reviewing pre-requisite skills (characters, setting, plot,

theme, and point of view) with the students, both as a pre-teaching procedure and as part of the Web Quest. Allowing the students the freedom to author their own writing, afforded them the autonomy needed to link this newer information to something they can relate to. Since the objectives of the assignment are clearly defined the students have a direct goal to accomplish thus providing added relevance.

Confidence. Given that rubrics have been provided, the learners are clearly aware of the performance requirements and evaluative criteria expected at completion of this project. These rubrics seek to provide the students with the motivation to complete the activity in its entirety in order to expect success in their final grade. Having completed their self created short story, the students are given the opportunity to reflect on their work choosing the award that they should be granted based on the content and structure of their story and the history and characteristics of the awards.

Satisfaction. The fourth and final portion of the ARCS Keller model includes positive consequences and equity. Positive consequence was accomplished by providing continuous feedback, as well as, rubric grading of the final product. Equity requires that one maintain

consistent standards and consequences for task accomplishment. Once again the rubric provided consistent standards for achievement, as well as, the clearly stated purpose at the beginning of each task.

Tasks

The tasks of this Web Quest were placed in sequential order. Having the students complete the assignment in this specific order allowed them to more easily develop their final product. The suggested sequence helped them move through the project at a steady pace while becoming more aware of "how the puzzle pieces of literature" fit together to make a successful piece of writing.

Content Organization

The construction of this web-site was based on information gained from the text *User-Centered Website Development: A Human-Computer Interaction Approach* by D. McCracken and R. Wolfe (2004). To make sure that the purpose of the project was clear, the information was organized into meaningful chunks for the users. An organizational scheme was also chosen, upon further reading. The informal design of the website started to form as a task oriented organizational scheme that possessed a hierarchical structure (McCracken & Wolfe, 2004).

Navigational Structure. Two key components of the navigational structure are effective navigation at the page level and visual organization.

Effective navigation at the page level. Considering McCracken and Wolfe (2004) caution against horizontal scrolling an immediate problem was detected and had to be fixed. Original development of this website portrayed text that was too lengthy, thus creating a horizontal scroll for the user. Making note of the problem, revisions have been made and currently, the left side of each screen has been devoted to the websites internal links. Studies have shown that users prefer left side navigation (McCracken and Wolfe, 2004). Therefore, it seemed necessary to employ this feature as well, so as to keep the site user friendly. Having developed this navigation bar based on the findings of McCracken and Wolfe (2004), it was also decided to make the navigation buttons text based for clarity reasons. McCracken and Wolfe (2004) mentioned that one may wish to include graphics, but with graphics comes problems. It is the desire of the developer to keep the website as clear and concise as possible, eliminating the possibility of the users having to guess about the topic of a button they are getting ready to explore. The users should feel confident in exploring the web-site and have a

clear understanding of where each button will take them. Therefore the buttons have been labeled in a simple fashion, yet the context of each is clearly stated.

Visual Organization. Alignment is one of the major components of visual organization. This website evidences knowledge of left alignment throughout the site to allow a neat and professional look. It is also important to show consistency according to McCracken and Wolfe, therefore, if the user was asked any one of the three essential questions: Where am I? How did I get here? or Where can I go from here? the website allows for an answer of yes at all times. This website also exhibits the proximity feature by having the navigation bar grouped in such a way that the user can easily identify the tasks that are related.

Development

Since multimedia elements have proven to be motivational and useful it was decided to incorporate multimedia aspects into this project to help solidify its impact. A website was chosen as the delivery mechanism for the following reasons: a website allows universal access for teachers and students, worldwide, assuming Internet access is available. Assuming such, a website stands alone

as a creative means of relaying information while participant motivation increases upon the introduction of technology. The navigation present on this website was chosen and verified based on texts written by experts, research conducted through surveys (see Appendix G), focus group meetings (see Appendix C), and peer evaluations.

In order to facilitate this learning a website had to be built. So, based on meetings with the focus groups, cross referencing both, state and district standards, needs of students according to teachers, and surveying of students in an instructional technology program, the construction of the website began. Since time was of the essence for the design of this resource, it seemed apparent that the Rapid Prototyping Design method would work best for accomplishing the desired goal in the time allotted. The Rapid Prototyping model allows the designer great flexibility especially when design and development are occurring simultaneously. The Rapid Prototyping model maintains the following steps: assessing users' needs, conducting data analysis, and setting the instructional objectives. Throughout the design of this resource the users' needs have been carefully analyzed in an ongoing effort to meet their desires. This website was created using a Rapid Prototype design with the software program

Dreamweaver. Dreamweaver was used, in part, because of the versatility that it offers the designer. Dreamweaver allowed the creation of a rapid prototype which expressed the design intent in relation to the color scheme, layout, left side navigation, etc. A Web Quest design seemed to be the best way to present the information to the select audience. Therefore, construction of the website began with a Web Quest style in mind.

In formatting the website, the designer initially chose a bright colored background in an effort to stimulate the interest of the audience. However upon polling the experts it was determined that the bright color was difficult to look at for any length of time, so changes had to be made. These meetings also acknowledged some major spacing errors. Due, in part, to the focus group meetings that were conducted these errors in website design became glaringly obvious. So based on suggestions from the focus groups and subject matter experts, thus began the ever-changing design of this website. Notice in Figure 2 a snapshot of the origination of the website. Having conducted some beta testing with the members of the focus group it was determined the background color used would begin to be hard on one's eyes, so changes had to be made.
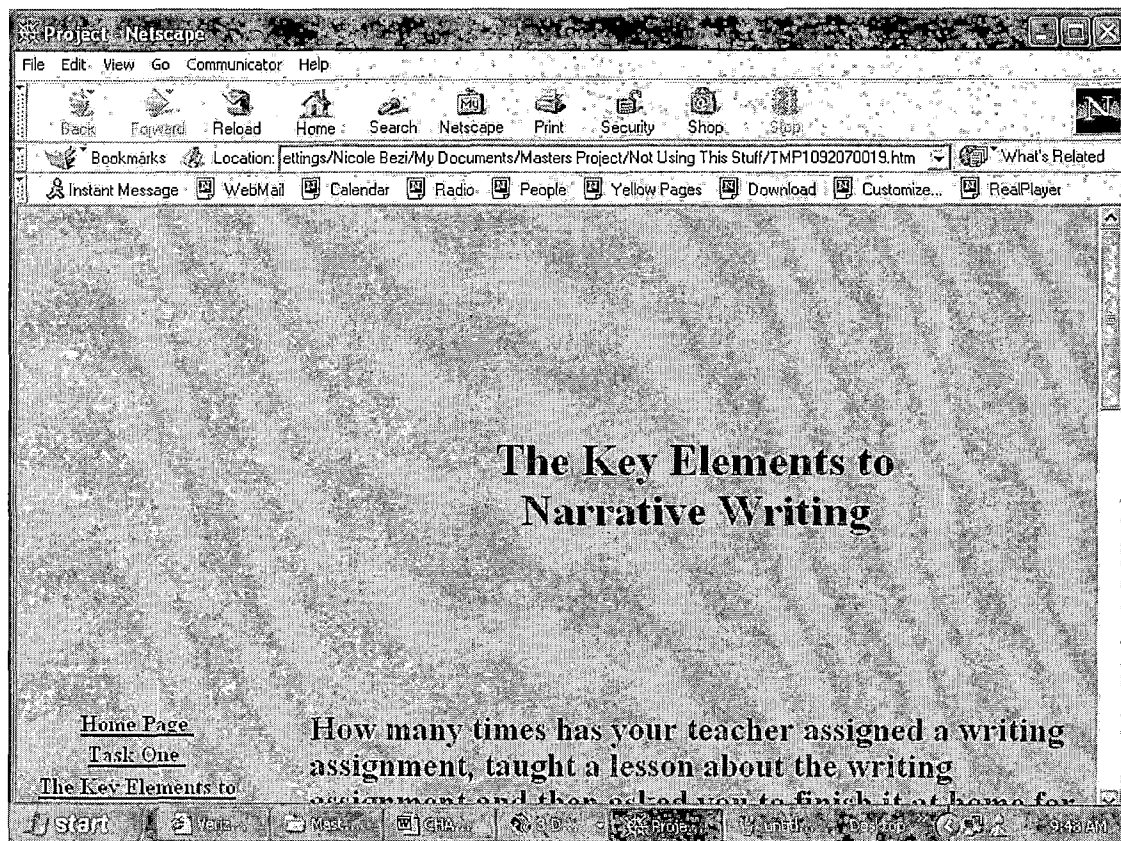
Figure 2. Original Website Color Scheme

One of the initial changes came in the background color of the website. Based on research conducted a complementary color scheme was chosen. This color scheme was used across the website by setting of a CSS within Dreamweaver and applying it to all of the files within the website. All of the pages within the website that contain a Heading One exhibit the font Georgia, "Times New Roman", Times, Serif at a size 18 point, with a normal style and font color #003300. The navigation bar and body text differs in that it is only a size 12 point. The font color

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remains #003300 unless it is a link. All links are
initially blue - Color = #3300CC and then upon user
visitation the link turns purple - Color = #996699. The
background color is E1C4A6 on all of the pages.

Figure 3 is a screen shot of the home page. It has
been developed using the same format as the remainder of
the website. Figure 3 exhibits background color changes
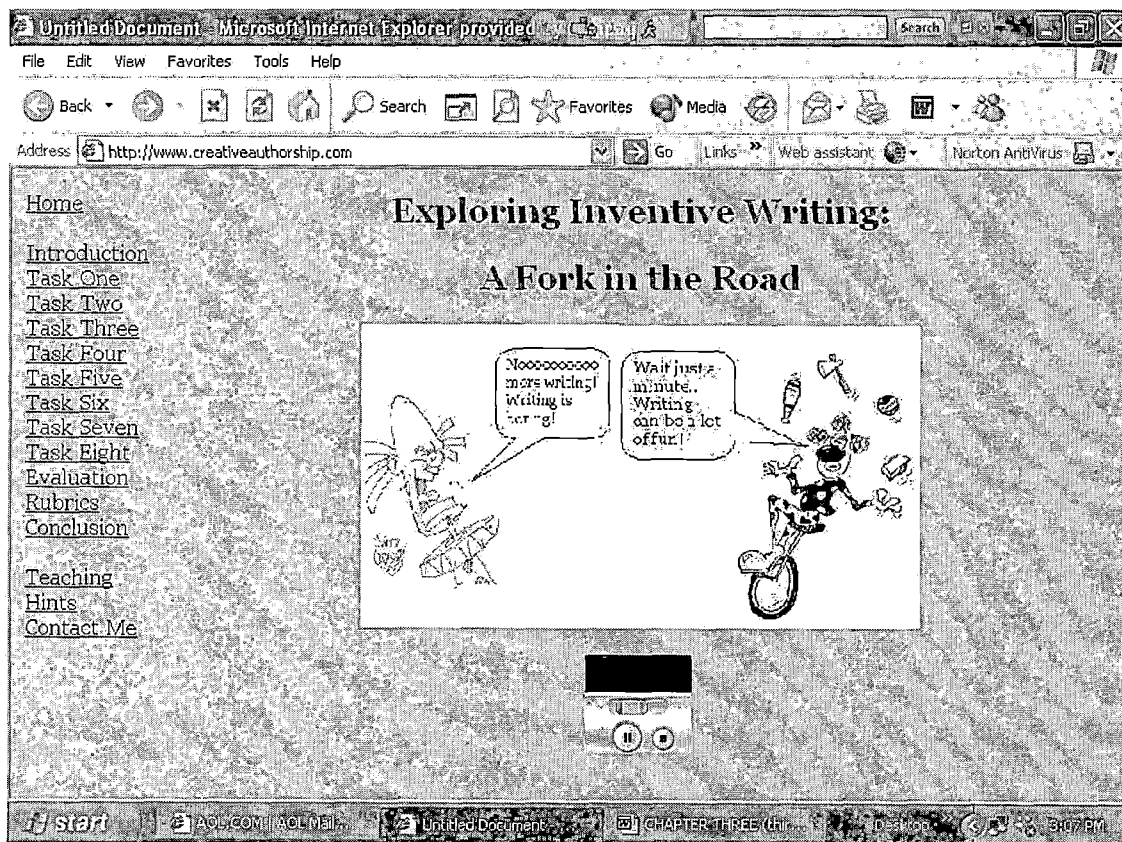based on beta testing conducted with the focus group.

Figure 3. Home Page

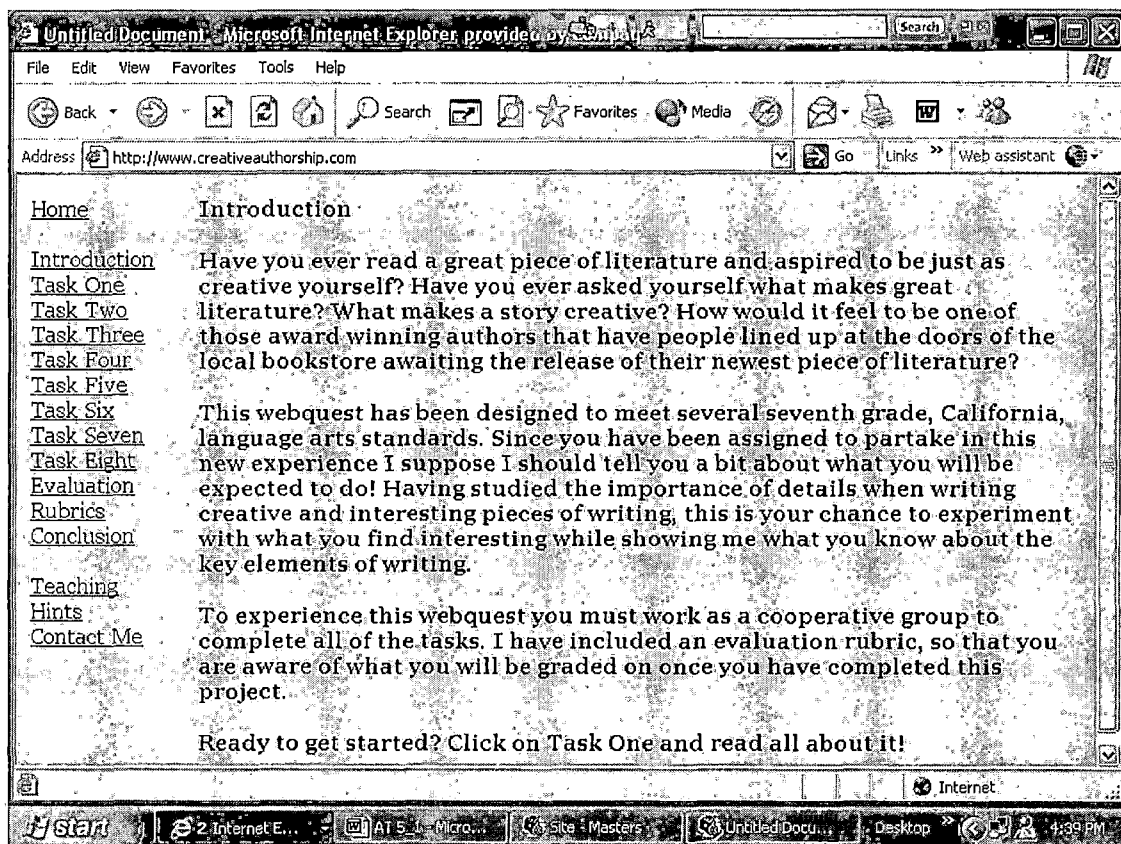Figure 4 displays the introduction of the Web Quest.

Figure 4. Web Quest Introduction

Figure 5 represents the view of the tasks 1-8 and the
requirements of each task. It was determined very early
on, during focus group meetings that the tasks needed to
be thoroughly explained for the learner at each step of
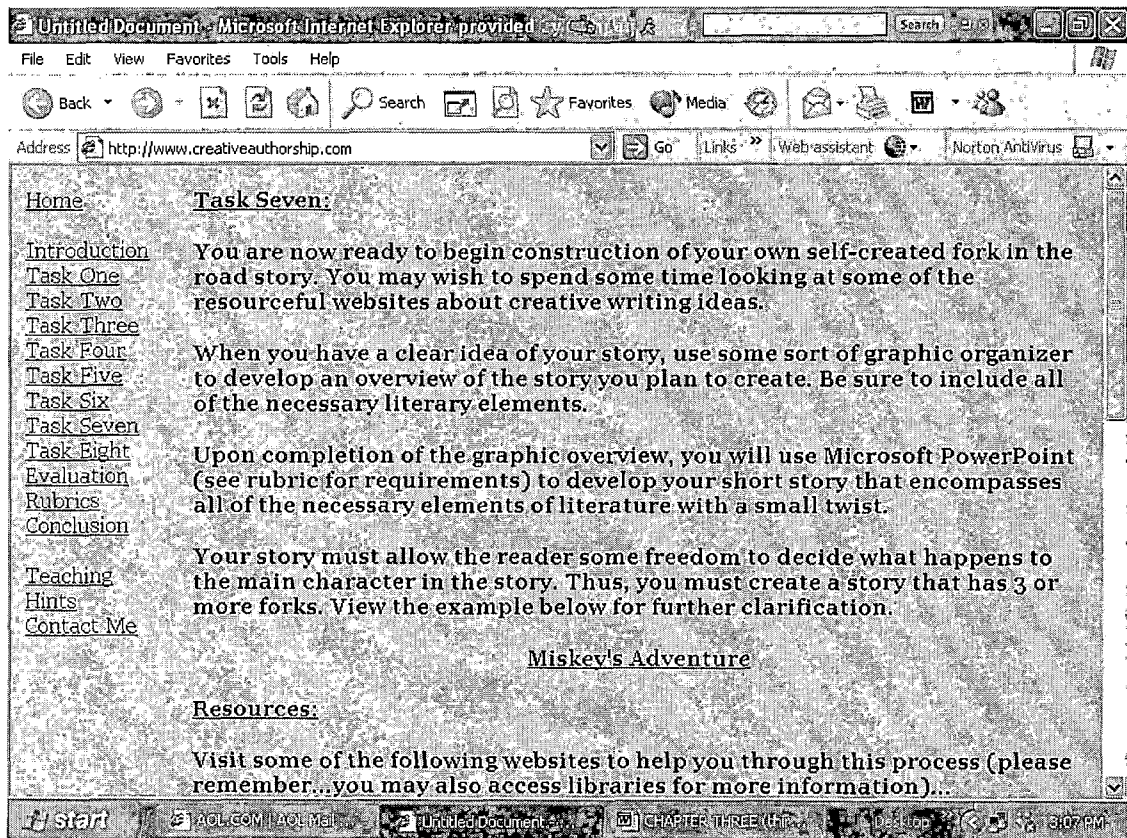the assignment.

Figure 5. Example of Task Page

Figure 6 shows the available resources for student use. This was also another recommendation of the focus group.
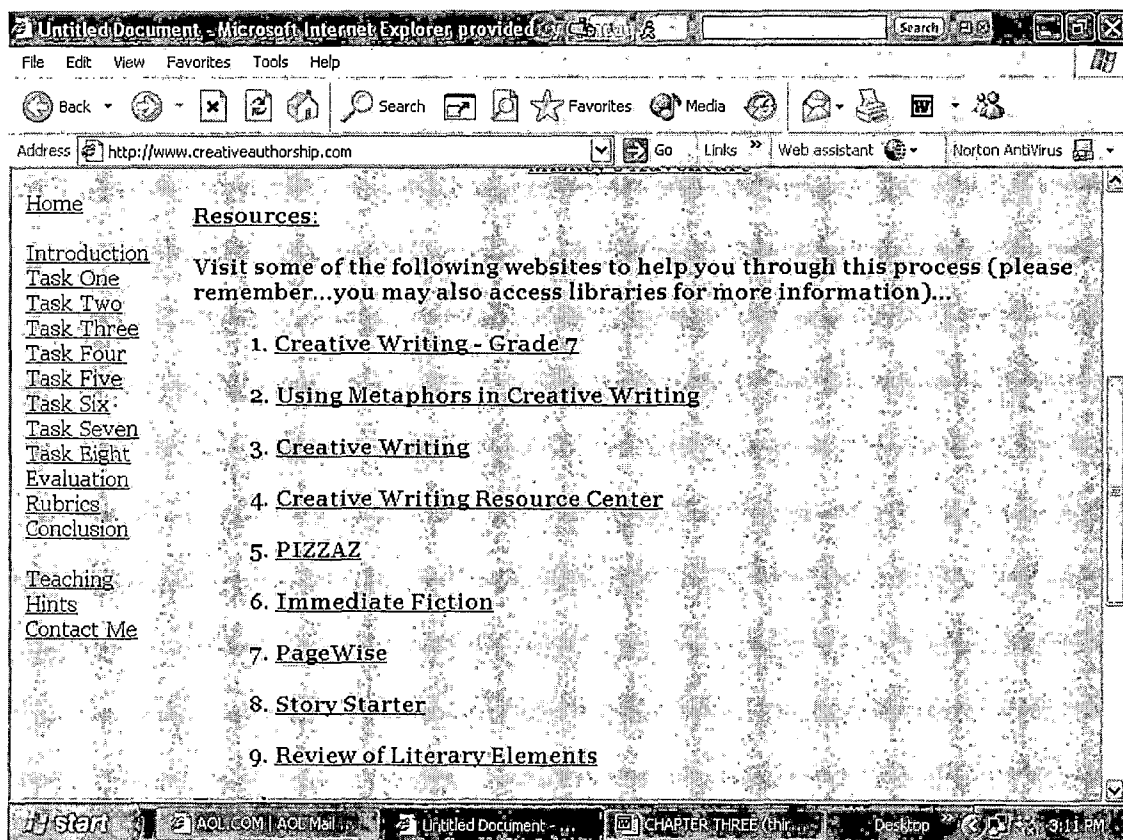
Figure 6. Student Resources

Figure 7 shows a link to a story template that has been provided for the students to use as a baseline for the development of their own project. The use of this template is not mandatory, but optional.
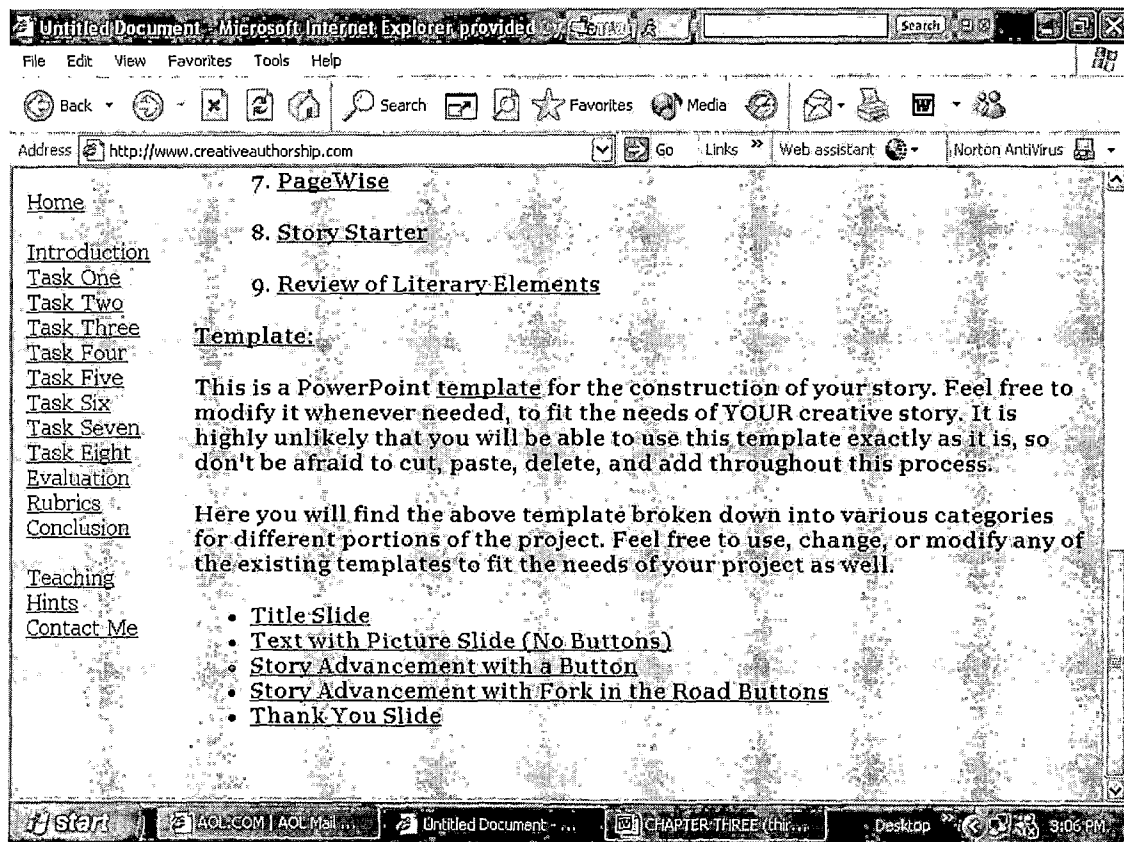
Figure 7. Available Student Template

This template helps facilitate the learning that must
take place upon beginning construction of the self-created
short story. The template was created to help students
write a piece of creative writing that incorporates one or
more branches in a creatively written story. These
branches allowed for variety in the different choices the
character made as the story progressed. Such choices gave
the reader the opportunity to change the destination of
the character to better suit their interest.

This template was developed by creating a standardized format. This format included: a title page, 8 standardized slides, and a concluding slide. The *Title Slide* included the title of the student created imaginative story, the author's name, the date the project was due to the instructor and the class that the student was completing this project for. The eight standardized slides were similar, but different. *Standardized Slide A* included a picture or clip-art on the left side that matched the right side of the slide which was the text portion of the story. *Standardized Slide B* included text in its entirety. *Standardized Slide C* included a picture or clip-art on the right side that matched the left side of the slide which was the text portion of the story. *Standardized Slide D* included text on the top three-quarters of the slide with the accompaniment of a fork in the road reader's option located at the bottom. To create this option, two textboxes with accompanying buttons were inserted side-by-side. These buttons linked to another slide that continued the story. *Standardized Slide E* included a picture or clip-art on the right side that matched the text on the left side of the slide with a button at the bottom of the slide that continued the story. *Standardized Slide F* included text in its entirety

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with a button at the bottom of the slide that continued the story. *Standardized Slide G* included a picture or clip-art on the left side that matched the right side of the slide which was the text portion of the story with the accompaniment of a fork in the road reader's option located at the bottom. To create this option, two textboxes with accompanying buttons that were side-by-side were added. These buttons linked to another slide that continued the story. *Standardized Slide H* included a picture or clip-art on the left side that matched the right side of the slide which was the text portion of the story with a button at the bottom of the slide that continued the story. The concluding slide was a simple thank you to the reader for taking the time to view the slide show that was created. This slide also included an audio compliment. These slides were developed in an effort to provide an interactive reading experience for students. PowerPoint was used to design the student sample and the student template. This program was chosen due to the author's familiarity with the program. Once the template was complete, it was posted on the website (www.creativeauthorship.com) that was created to be used for completion of the project. Figure 8 has been provided to show an example of a completed creative story.
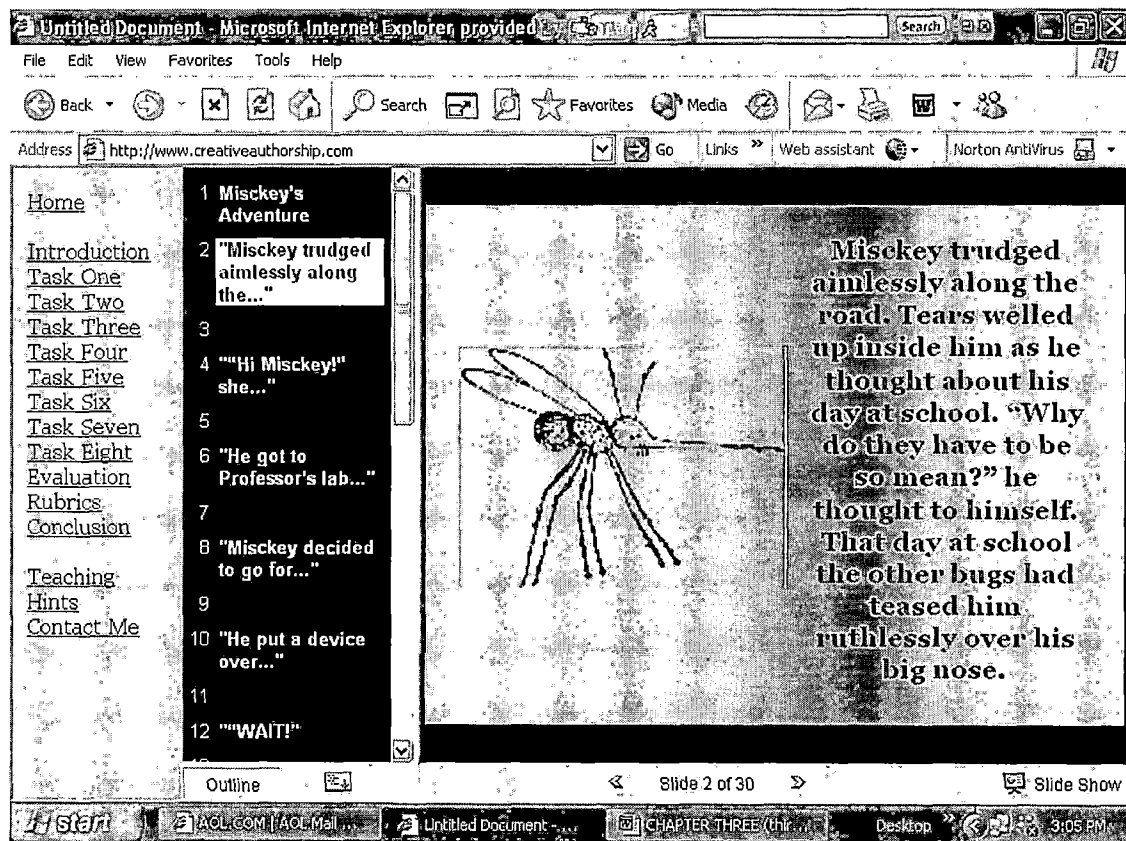
Figure 8. Student Sample of Creative Story Page

In order to provide the students with a clear view of the expectations being placed on them, Figure 9 shows an evaluation rubric, provided for access at any time throughout the completion of the assignment.

Figure 9. Evaluation Rubric

Since this project is so involved it seemed necessary to include a page that details some teaching hints (see Appendix F) that might be useful to the instructor. Figure 10 displays some useful teaching hints for the instructor of the Web Quest. These hints have been shown to be useful in the successful completion of the project.
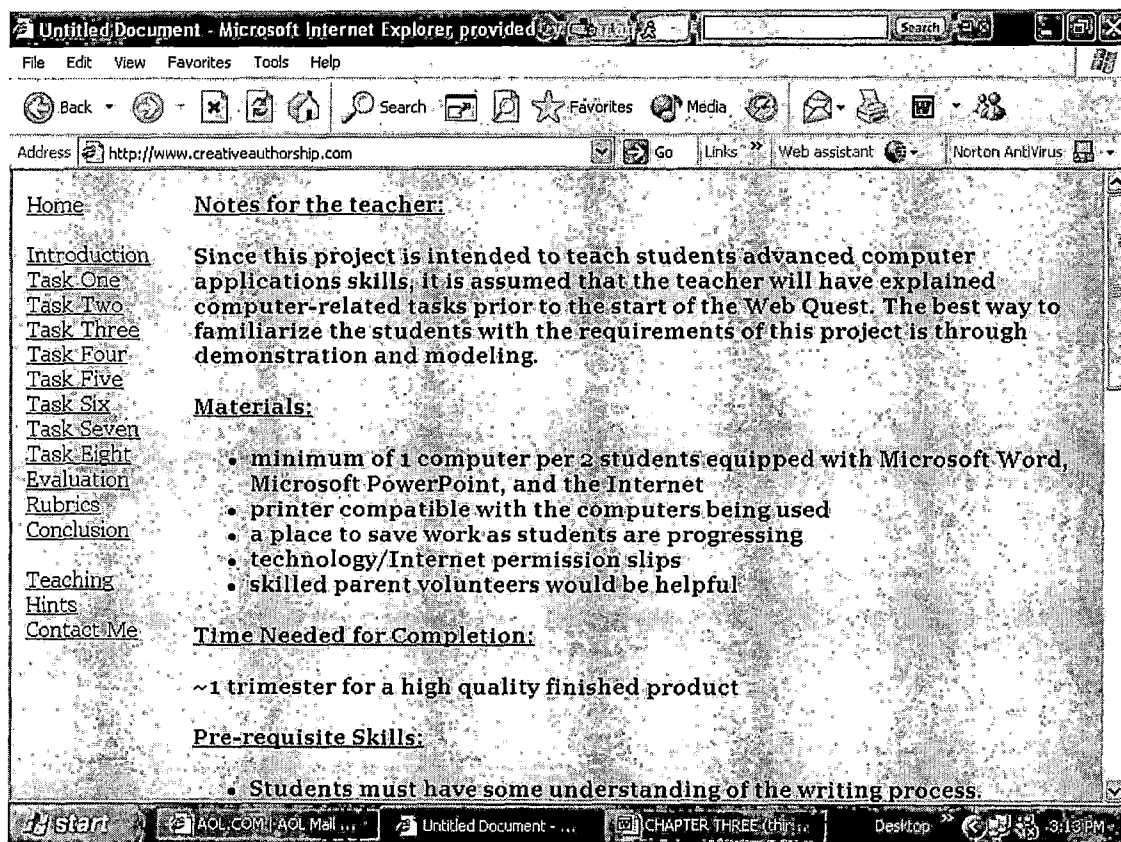
Figure 10. Teacher Hints

Finally, to help ensure the success of the project and help see it to its completion Figure eleven relays contact information so that the author can be reached at anytime to assist in any way necessary.
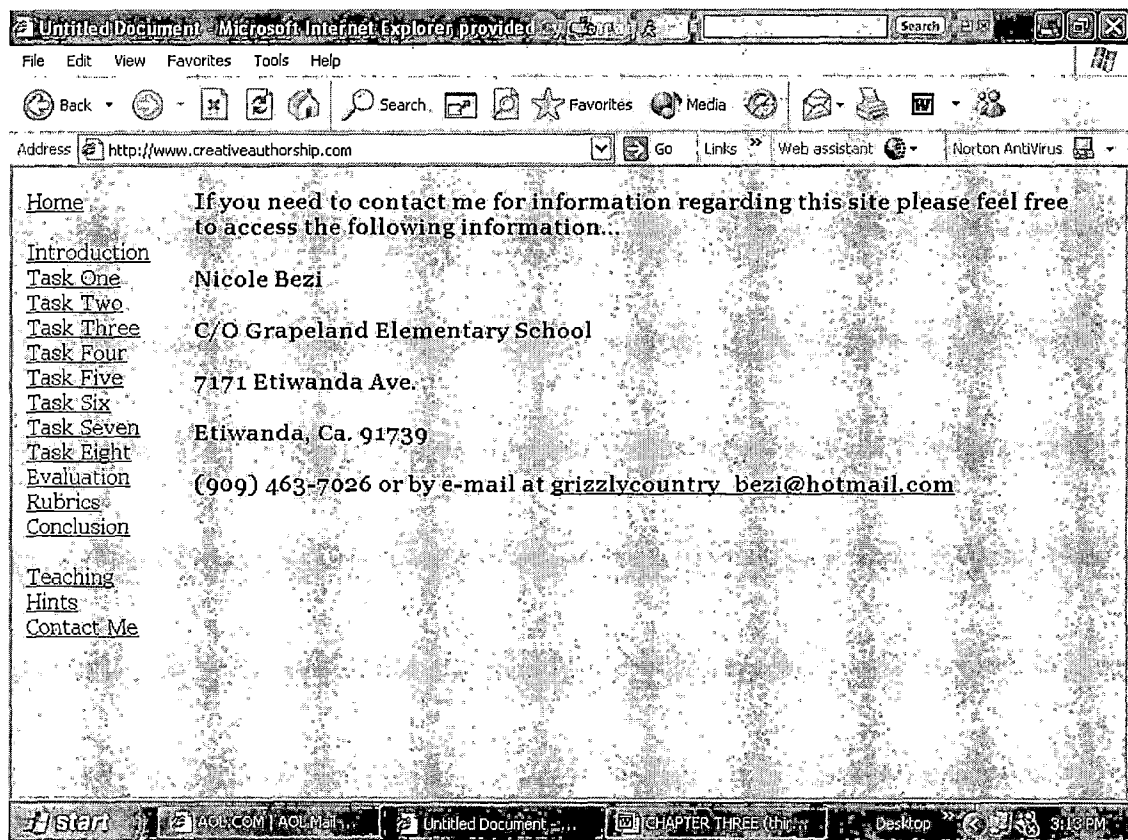
Figure 11. Author Contact Information

Implementation

Figure twelve shows the results of the beta test of the website. Notice that the task is explained, while being followed by resource links to help in the solidity of the information for the learner.
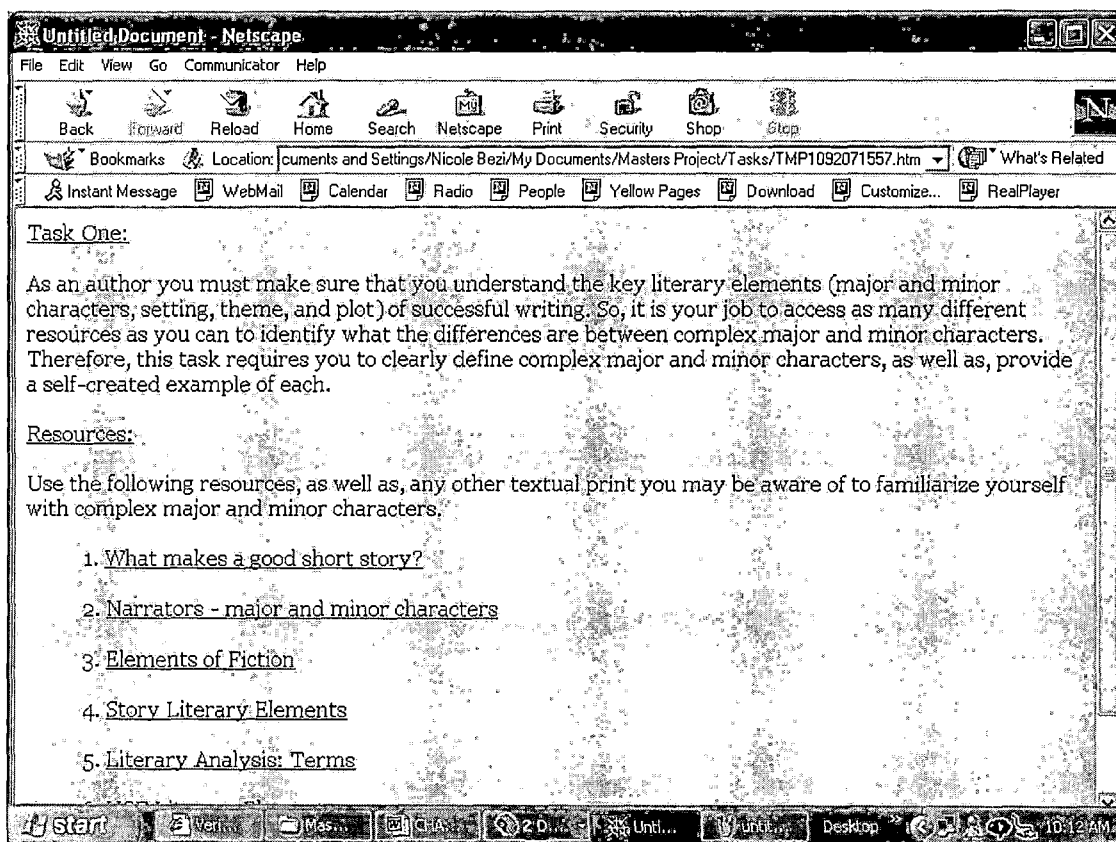
Figure 12. Website During Beta Testing

Although constraints did not allow the designer to actually implement this resource with a class of middle school students, if in fact it was going to be implemented the following steps would allow ease in the presentation of the assignment.

Assuming the previously mentioned pre-teaching methods have been implemented prior to arriving at the computer lab, the Web Quest lesson is ready to begin. Initially, the instructor should guide students in making sure the volume on their computer is turned up so that it

is audible. Then the students should proceed by finding

the website address and book-marking it, since this

project will be revisited for multiple weeks. It is

recommended that students use their time during the first

class session to become acquainted with the website

(navigation, resources, requirements, rubrics, etc.). In

subsequent visits to the computer lab, for completion of

this project, the students may be encouraged to stick to

an instructor provided timeline, but, within reason, allow

them to work at their own pace. Beginning with the second

class session students should begin working towards

completion of Tasks 1 through six. These tasks should be

completed in 1 to 1 ½, 50 minute class sessions. To begin

each session the teacher should introduce each new Task by

teaching a mini-lesson, via student textbooks, online

resources, etc. After each mini-lesson, students should be

given time to explore the provided resources and complete

the assignment. As students are working toward completion

the teacher should be walking around providing continuous

informative feedback. The instructor should set a final

deadline date for completion of Tasks 1-6, as Task 7 will

require whole group attention upon initial start-up.

Having completed Tasks 1-6, students should have a

clear understanding of the key literary elements and how

to use them in a story. Upon beginning the introduction of Task 7, as a whole group it would be a good idea to begin discussing and sharing the student sample PowerPoint. One way in which to do this would be by using a computer with a video cable connected to a TV as a projection device. Have the students view the sample story and read through it together. As they are reading through the story, give them a chance to interact with it by letting them choose the desired path of the character. If time permits, consider letting the students make a second run through the sample story allowing them to choose the opposite path as the first encounter, so as to make it easier for them to understand the objectives of this assignment. After that, show the students the template slides. Explain and describe to the students the different parts of the template. This would be a question and answer time as well. Next, work on writing a group story using the provided template. As this group story is created, the teacher must be consciously guiding the story in a way that allows for the student chosen character to experience different *forks in the road* while emphasizing the literary elements. This approach would require the teacher to somewhat pre-plan the lessons character-decision points.

For example, what is the character going to experience as a fork in the road? Maybe the character has to decide whether or not to take one of his friends along or go alone. How is the setting going to be altered with a fork in the road? Maybe the setting is going to take a turn for the worst as the plot begins to thicken, by beginning with a bright and sunny day and then suddenly a storm rolls in and it becomes rainy with accents of thunder and lightening. At the climax portion of the story, what are the two possible twists that will occur in the plot? Maybe the character runs from an enemy. Maybe the character runs toward the enemy. How is the theme, or the underlying message, going to be changed, depending on the route the character takes? Maybe the message is going to encourage one-make good choices in order to avoid unwanted consequences. Maybe the message is going to encourage one to not be fearful of certain obstacles in life, rather take them on head-on and conquer them with success.

Having worked as a group to create a story, the students have experienced the depth to which they are required to complete this project. It is only now, that the students are ready to begin the graphic overview or brainstorming of their own proposed story. Have the

students pre-plan their story paying close attention to the inclusion of forks in the road (decision making points) for all or most of the literary elements.

Upon completion of the graphic overview students will be ready to begin creating their PowerPoint. Task 7 will require much more time and explanation. In time, the students will be ready to use the resources that they researched, as well as, the template that has been provided to guide their creative story. As students begin, questions will arise. One way to alleviate questions is to pull small groups of students and have them complete mini-lessons, such as: adding and linking buttons to a slide, inserting clip-art, inserting an audio clip, etc. After teaching the mini-lesson have students practice by quickly creating 2-3 slides that exhibit the content that was taught. Conducting mini-lessons, will allow the instructor some freedom to re-direct questions to other classmates that have shown mastery of the mini-lesson.

Once the student PowerPoint presentation is complete with buttons/slides linked, images/sounds added, and text typed students will begin researching the awards in Task 8. In completing Task 8, students will assume responsibility for the quality of their work, by making sure that they feel deserving of one of the 6 awards that

they have to choose from. At completion, students should double-check their project against the provided rubric, hopefully feeling a sense of accomplishment and satisfaction after all of the hard work that they endured during this project.

Evaluation

Since limitations eliminated the possibility of testing this project on the primary user the evaluations that will be discussed are based on results of the secondary users, the teachers. In order to evaluate the value of this website the selected teachers joined the author in a school computer lab on a minimum day. The teachers were strategically placed, so that there were at least three empty computers in between them. Initially the teachers began by clicking on the bookmarked website. After explaining that the author was to appear invisible to them, therefore any questions that they might have would have to be written down, navigation of the website began. The author wandered around the room watching for potential problems to arise. Notations were made by the author and having completed the evaluation, the teachers were asked to meet and discuss concerns of poor design

with the author. Throughout the meeting, concerns were discussed and documented.

As this project continues, adjustments and upgrades will be made based on data gathered from student surveys. These surveys are located on the project website as part of the culminating activity. Upon completion of this project the students stand to gain, not only a cohesive learning experience, but also a memorable and proud accomplishment.

Summary

The main objective of this website was to make literary elements meaningful for middle school students in a unique and experiential way. The design process used to produce this website consisted of the following steps: assessment, design, development, implementation and evaluation. Research conducted on learning theories, as well as, motivational theories played an active role in the design and development of the project. Focus groups and meetings with subject area experts aided the movement through the analysis and evaluation stages of the design process. Feedback from these individuals during the evaluation phase caused this ever-evolving project to take

on, yet, another new and improved look, surely leading to
the successful design of the project.

CHAPTER FOUR

CONCLUSIONS AND RECOMMENDATIONS

Introduction

This chapter will attempt to describe the experiences of the author as the development of this project evolved. It will also try to explain what was learned overall and the importance of the process that was experienced. In conclusion, some lessons that might be learned will be identified, which might be useful to seeking to create a similar project.

Conclusions

The conclusions extracted from the project are as follows. Since the participants involved in the testing of the final website were not students, results in an actual classroom setting may vary. Due to time constraints this project was not able to be implemented in the classroom setting. However, the participants that used the website found it easy to locate the tasks, resources, and rubrics. The participants seemed to appreciate the design and navigation of the website. One suggestion made by the participants, which could have possibly been omitted by students, was the option for presentation of the final

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creative adventure using another mode, other than
Microsoft PowerPoint.

One important feature in this web design that failed
to be tested was the Story Template. Although the
participants experimented with the template, a complete
story was never seen to fruition; therefore, the author
did not obtain the results desired from the story
template.

Recommendations

The recommendations resulting from the project are as
follows.

Since middle school students buy-in to the game-like
appearance of many websites it may be beneficial to tend
to the aesthetics of the webpage itself to aid in the
motivation of the students.

It may also be useful to offer another option for
completion of the project. The use of a web-based, choose
your own adventure template might be applicable for
spacing issues and concerns presented by use of Microsoft
PowerPoint. Depending on the length of the student
writing, a break in the story may not fit appropriately
when needed due to lack of space provided by a slide in
Microsoft PowerPoint.

Summary

Taking a look back, the first step in accomplishing the proposed goal was to determine the problem that existed. After carefully analyzing the problem, the difficulty came in having to identify the significance of the problem. Although this posed some difficulty, the importance of identifying these aspects of the assignment were understood. For if there was not a significant problem then why would an instructional plan need to be implemented? After accomplishing this challenging endeavor it was time to move on to the next portion of the project. What instructional design plan would begin to solve the problem that had been identified? Resources gathered from technology experts served as references in developing and formatting the initial design questions. The initial attempt at developing an analysis plan that fit the problem seemed to be fairly successful. Then it seemed necessary to assume the role of either the middle school student or the middle school teacher depending on the question that was being asked.

At this point a roadblock was experienced. It became unclear what was needed when it came to developing the design portion of the assignment. So, experts were consulted. Upon departing the expert meeting, the key

elements of this part of an instructional design plan were understood. The application of what had been learned, via the expert meeting, in developing the next portion of the instructional design plan. In attempting to complete this section, once again, it proved to be more difficult to put the design of the resource into words. It was difficult to explain how the different slides of the template worked and what their function was in relation to each other and the successful completion of the assignment, however after typing, reading, and retyping, the template began to come together. The next roadblock came in describing the implementation plan. The idea was understood; however what was not understood was the depth to which the implementation of this resource had to be described. It was at this time that another realization surfaced. The way in which the plan would be implemented had not been considered. Once again upon talking to the expert the idea became clearer. Some extra emphasis was put into providing very clear examples about the decision-making points of this assignment.

Overall, this was an enlightening experience. It forces one to think about the different components of an instructional design plan. As an instructional designer, the following are key points to consider:

- Instructional design is a very time-consuming process, which must be revisited and revised frequently.

- It involves some uncertainty and anxiety; difficult – painstaking; exhaustive, but it gets easier as one moves through the process over and over again.

- It is important to work toward developing the "right" questions in the analysis phase in order to accurately develop the rest of the components of the instructional design plan.

- Flexibility is a must when it comes to concluding successfully.

- Analysis is a separate, yet very connective process.

- The project must be viewed as a problem solving process that required thinking and re-thinking constantly.

Overall, it has been determined that the website poses useful in learning the component parts of a short story. However, the value of the story template for completion of a student created short story remains

inconclusive. It is known, that upon implementation changes will have to be made.

APPENDIX A

CD OF PROJECT

APPENDIX B

FOCUS GROUP INITIAL INTERVIEW SURVEY

Technology Survey

Exploring Creative Writing in the Middle School

Classroom via the Effective Use of Technology

Nicole Bezi

Teacher/Interviewee # _____

I have asked you to participate in this study because you...

- are teaching at the middle school level
- are required by the Etiwanda School District to complete technology lessons that are, upon completion, placed in the student's portfolio.
- have expressed interest in learning how to effectively use the technology that is currently available at your school site.

The end use of this interview will be to create a teaching tool that will assist in teaching state mandated curriculum, while engaging students and incorporating creativity, ingenuity, and the use of technology.

- o   What content area(s) do you teach?
    - ☐   Math
    - ☐   Science
    - ☐   Language arts
    - ☐   Social Studies
- o   What types, if any, of learning experiences have you had in using technology?
- o   Do you feel that you have adequate training to use technology in your classroom?
- o   What do you feel you could use additional training in? (Check all that apply)
    - ☐   Basic computer use
    - ☐   Internet
    - ☐   E-mail
    - ☐   VCR and TV
    - ☐   DVD Player
    - ☐   LCD Projector
    - ☐   Microsoft Word
    - ☐   Microsoft PowerPoint
    - ☐   Microsoft Excel
    - ☐   Microsoft FrontPage
    - ☐   Microsoft Publisher
    - ☐   Other

o   What method of training would best serve your needs? (Check all that apply)
- ☐   After school in-service
- ☐   Video tape available for check-out
- ☐   Quick-reference Desk Flip-chart
- ☐   Web-page
- ☐   3-ring binder with dividers
- ☐   Reference book for each tool

o   Do you currently integrate any technology into your lesson plans?
- ▪   If so, how?

APPENDIX C

FOCUS GROUP MEETING DISCUSSION QUESTIONS

Focus Group Meeting #1
o   Do all of your students have access to a computer with Microsoft Office at home?
o   Do all of your students have individual access to a computer with Microsoft Office at school?
o   Do you have access to an LCD projector or a computer that is hooked up to at TV for display of information to students while teaching?
o   What are current student technology skills?
o   What type of technology do students prefer?
o   What do students fear or what inhibitions do students have when it comes to using technology?

Focus Group Meeting #2
o   Do your students currently use technology to complete any of their assignments?
o   How are your students currently expected to use technology with literature and writing?
o   In what way would you like to encourage your students to use technology in their writing?

Focus Group Meeting #3
o   What do middle school students know about plot, setting, characters, climax, and resolution?
o   What type of instruction about literary elements have you delivered?
o   In what ways do you expect your students to define and demonstrate understanding of literary elements?
o   Currently, how are these five literary elements being taught effectively?
o   How do middle school students learn best?
o   How much time would you allot your students to complete this proposed project?

Focus Group Meeting #4
o   Would you give your students the time to respond to a five question survey after having completed this lesson?
        ▪   What do you feel your students learned from this lesson?
        ▪   List examples of what helped the students develop their ideas?
        ▪   List the different problems the students encountered in the design of their creatively written story.
        ▪   What's your self-evaluation having experienced this lesson as an instructor? Did you meet the goals that you set for your students?
        ▪   How do you feel now that this instructional process is complete?

APPENDIX D

INSTRUCTIONAL OBJECTIVES FOR THIS PROJECT

1. Students will be able to **identify** the plot line of a story.

2. Students will be able to **construct** the complex major and minor characters of a self-created story.

3. Students will be able to **develop** a short story that maintains the major literary elements.

4. Students will **decide** what components to include in their short story compositions.

5. Students will **outline** the proposed story that they plan on writing.

6. Students will **utilize** the resources listed on the Web Quest to gain a clear understanding of the key elements of a short story.

7. Students will **manipulate** different aspects of Microsoft PowerPoint to create a technology-based version of their self-created short story.

8. Students will be able to **dissect** their self-created story into key elements.

9. Students will **determine** where to create breaks in their story to obtain the required fork in the road.

APPENDIX E

CALIFORNIA STATE STANDARDS ADDRESSED

IN THIS PROJECT

Writing

1.0. Writing Strategies

Organization and Focus

1.1 Create an organizational structure that balances all aspects of the composition and uses effective transitions between sentences to unify important ideas.

1.2 Support all statements and claims with anecdotes, descriptions, facts and statistics, and specific examples.

1.3 Use strategies of note taking, outlining, and summarizing to impose structure on composition drafts.

Research and Technology

1.6 Create documents by using word-processing skills and publishing programs; develop simple databases and spreadsheets to manage information and prepare reports.

Evaluation and Revision

1.7 Revise writing to improve organization and word choice after checking the logic of the ideas and the precision of the vocabulary.

2.0 Writing Applications (Genres and Their Characteristics)

2.1 Write fictional or autobiographical narratives:

a. Develop a standard plot line (having a beginning, conflict, rising action, climax, and denouement) and point of view.

b. Develop complex major and minor characters and a definite setting.

c. Use a range of appropriate strategies (e.g., dialogue; suspense; naming of specific narrative action, including movement, gestures, and expressions).

In order to accomplish these state driven objectives I expect to go through the following procedures... [NOTE - Since this project is intended to teach students advanced computer applications skills, it is assumed that the teacher will explain computer-related tasks along the way, preferably by demonstration and modeling. Accordingly, it is assumed that ALL of these procedures will take place in a computer lab/classroom with 16 computers (unless you want to let the students work individually to construct the items in this unit). Assuming students have prior understanding of how the Microsoft programs work; the following steps should be followed.]

APPENDIX F

PRE-TEACHING GUIDELINES

Pre-teaching

- ❑ Prior to beginning this unit be sure to have conducted a mini-lesson about major and minor characters, setting, theme, plot (including climax and resolution), and point of view.

- ❑ Read a creatively written story. [Suggestions – prior year student example or Today I Feel Silly by Jamie Lee Curtis.]

- ❑ Discuss the key literary elements that were expressed in the example piece of literature that you shared.

- ❑ Brainstorm each literary element using the story that was read to the class. For example, if you read the suggested book, "Today I Feel Silly," then begin a brainstorm about the major/minor character, the setting, the theme, the plot, and the point of view.

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