

Film as Art Multimedia DVD

By

Matt Densford

Submitted to
the Faculty of the Information Engineering Technology Program
in Partial Fulfillment of the Requirements for
the Degree of Bachelor of Science
in Information Engineering Technology

University of Cincinnati
College of Applied Science

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Film as Art Multimedia DVD

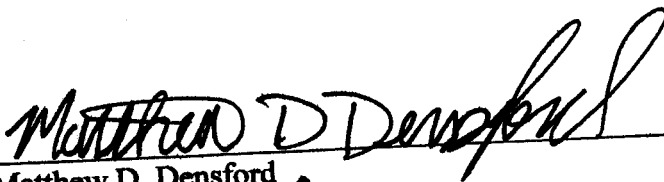
by

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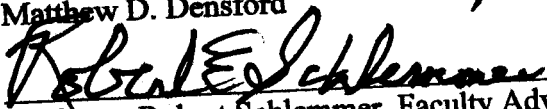
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Thank you to my father and mother, Oliver and Theresa, for always being there for me throughout my college career and my life. I know I would have not made it this far without your support.

I would like to dedicate this to Martha Rose, my grandmother who passed away during the creation of this project.

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Abstract

Film as Art is an instructional multimedia DVD designed for supplemental instruction in the University of Cincinnati College of Applied Science's "Film as Art" course. In this capacity it will assist students in identifying the tools of cinema, including but not limited to: photography, Mise en Scene, movement, editing, sound, acting, story, drama, writing, ideology, and theory. These cinematic tools are simplified by appropriate text, illustrative video and audio in such a way that any student can identify, better understand, and respond to a film's meaning. In addition, precise scenes from movies are shown in order to aid identification and implementation of these technical aspects of cinema. The DVD was created to assist in the facilitation of the "Film as Art" course by using simple navigational schemes as well as current films, which enhance communication from film to the student. Therefore, the knowledge of these cinematic tools can be learned from class instruction, as well as this DVD. The Film as Art DVD speaks a common language that encourages students to explore films that illustrate different styles and techniques from which students can develop the skills necessary to evaluate the various elements that can make a film a genuine work of art.

Film as Art Instructional DVD

1. Statement of the Problem

Every year millions of people flock to movie theaters to enjoy the entertainment of film. Thousands of others rent, buy, and sell movies as a hobby. Viewing films has become a favorite pastime and a source of enjoyment throughout the world. However, prospective students are rarely able to recognize film as art because they cannot identify the tools used to create films.

The technical aspects of film are both interesting and enlightening. They highlight all the attributes of other art forms such as painting, stage plays, photography, poetry, music, and the novel, by allowing each of these to be revealed in constant motion and on the same plane (2, p. 44). Thus, cinematic tools transform all other art forms into a reality, allowing viewers to see more deeply the meaning of the film itself, and the meaning of film as art.

Most movie savvy students are not familiar with certain cinematic tools such as: photography, mise-en-scene, movement, editing and sound, acting, story, drama and writing, ideology and theory and are only able to pay attention to the surface meaning of the film. The concept of Mise-en-Scene allows the viewer to study all the aspects of an entire film employed on one particular frame (2, p. 542). Sound exemplifies what the viewer sees through what he/she hears, and allows him/her to recognize the meanings associated with particular sounds. The three aspects of sound are: dialogue, sound

effects, and the musical score. Dialogue provides the viewer with information that cannot be shown on screen, while sound effects emphasize what is on the screen or what may be forthcoming (2, pp. 220-243). The musical score adds to the rhythm of film, while enhancing the emotional connection of the audience and characters on the screen (2, pp. 248-251). Movement works by contributing to the rhythm and motion of the film.

Unlike sound and movement, acting is in the forefront of film. Certain actors draw viewers to the cinema because of fame, but all actors are expected to become the characters they portray. The importance of acting is that it encompasses the human aspect of the story and the film (2, pp. 269-272). The story is ultimately the key to a film's success. It must be unified in the plot, with one event leading logically to another, while still being interesting. The story must also be simple enough to be told within the time allotted, but complex enough to allow for viewer interpretation. Lastly, special attention must be paid to the use of emotional material to ensure it is not too overwhelming throughout the film. In the end, each of these aspects must be brought together through good editing. Editing brings together all the elements of film to complete it. Editing is important because it creates a "unified whole in which each separate shot or sound contributes to the development of the theme and the total effect" (2, p. 153). Once each of these elements has been combined, the film will be more deeply understood, and will have greater meaning to the viewer. This will, in turn, encourage more discussion and appreciation of the focus of film as an art form.

Being an avid film lover myself, I understand the problems and difficulties associated with examining the tools of cinema. First, the meaning of each individual

tool, although it may be generalized, may also be individual to those in charge of the film. The tools and techniques of the cinema are often complex, and may not be comprehended by the prospective student. However, even if the creator makes the tools obvious, and easy to acknowledge by viewers, the viewers themselves may feel disinterest because of the complexity of the film. Books, reviews and articles are the main resources which define and explain cinematic tools. These sources, although they may discuss the tools in depth, cannot fully explain them because examples are not shown in constant motion as on screen. Web sites are an alternative; however, it is not feasible to expect an individual site for each film to explain the cinematic tools used. Most sites list actors or themes, but do not enter the arena of identifying and describing cinematic tools because they are too specific.

Figure 1 shows an example of a Web site that does not identify or describe cinematic tools to create the film. Figure 1 is a screen shot taken of the Web Site for the movie *Fahrenheit 9/11* or <http://www.fahrenheit911.com/> (7). It is a well-designed Web site that shows the trailer, available theaters to view the film, text of premiers in Los Angeles and New York, and a link to view the commercial for the film. However, it shares absolutely no tools and techniques used to produce the film. This is not the only site like this; virtually all others follow this pattern.

ABOUT THE MOVIE WHERE CAN I SEE THE MOVIE? WHAT DO I DO NOW? LIBRARY RESOURCES NOW CAN I HELP THE SOLDIERS?

MICHAEL MOORE

OPENS NATIONWIDE FRIDAY, JUNE 25TH

"SCORCHING!"
THE BEST FILM MICHAEL MOORE HAS MADE SO FAR. A POWERFUL AND PASSIONATE EXPRESSION OF OUTRAGE & PATRIOTISM.
The New York Times A.O. SCOTT

One of the most controversial and provocative films of the year, *Fahrenheit 9/11* is Academy Award-winning filmmaker Michael Moore's scathing examination of the Bush administration's actions in the wake of the tragic events of 9/11. With his characteristic humor and dogged commitment to uncovering the facts, Moore considers the possibility of George W. Bush and where it has led us. He looks at how - and why - Bush and his inner circle decided pursuing the Saudi connection to 9/11, despite the fact that 15 of the 19 hijackers were Saudis and Saudi money had funded Al Qaeda. *Fahrenheit 9/11* shows us a nation kept in



TO VIEW THE TRAILER



WHERE CAN I SEE THE MOVIE?



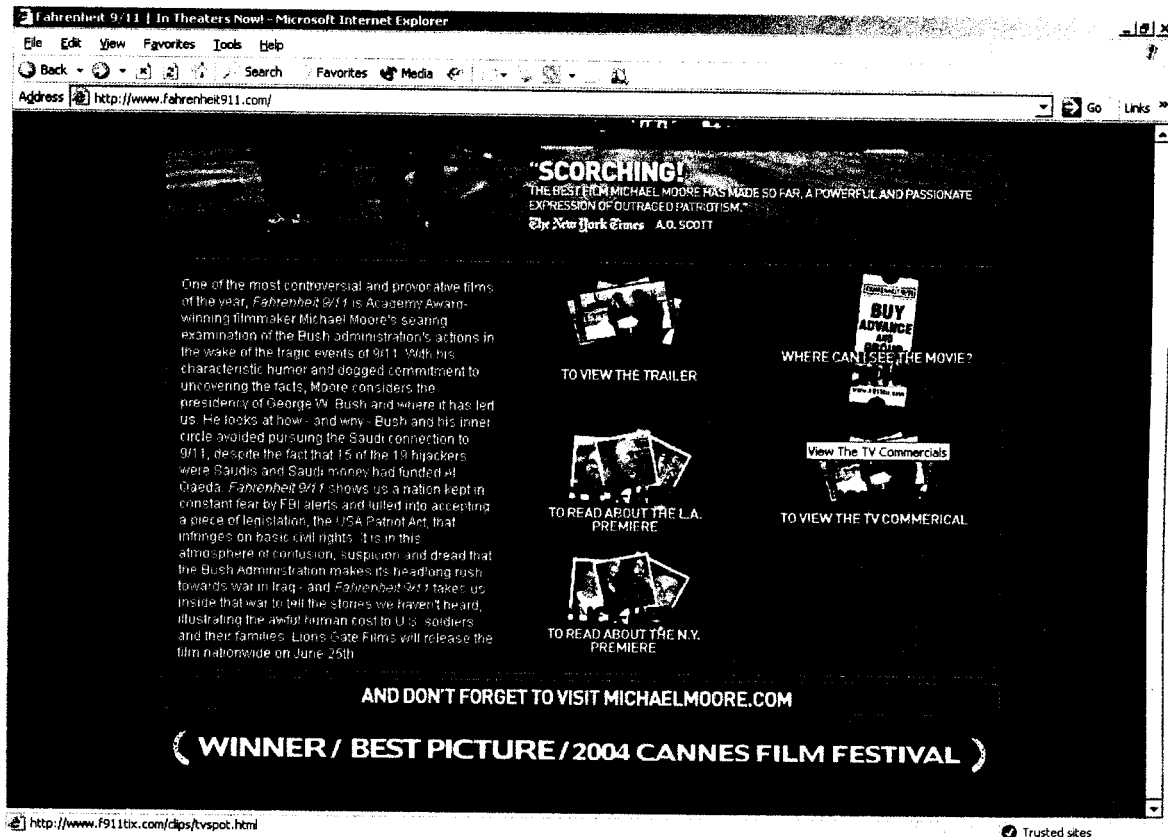


Figure .1 Example a Film's Web Site

2. Description of the Solution

This DVD is an instructional, multimedia DVD for Dr. Grace Epstein's Film as Art course. It shows that each individual tool of cinema can be simplified in such a way that any prospective student for the Film as Art class may easily identify the tools of cinema. The cinematic tools include photography, Mise-en-Scene, movement, sound and editing, acting, story and writing, drama, ideology and theory. These tools identify a meaning to the film other than what is on the film's surface. The use of appropriate text, illustrative and educational video, and audio identifies these elements.

The DVD serves as a teaching aid for Dr. Grace Epstein in her Film as Art course. It allows Dr. Epstein to teach the tools of cinema because the DVD describes and

simplifies these tools. In addition, precise scenes from movies are shown in order to assist the audience in identifying and understanding the tools of cinema.

2.1 User Profile

Dr. Grace Epstein is the target user of the Film as Art DVD.

Dr. Grace Epstein

The primary user of the Film as Art DVD is Dr. Grace Epstein. She must be able to use navigation buttons and have the ability to click on hyperlinks. This process will be very similar to navigating through any DVD movie on the market.

2.1 Design Protocols

2.1.1 Organizational Scheme

The organizational scheme is designed for a single DVD application. Only one copy of the DVD exists and that is for Dr. Grace Epstein. The application is based off of the Film as Art class syllabus. It is designed to follow a hierarchical structure, much like chapters from a book. The menu choices are universal and can be found along the left side of the screen. Each link refers to its own page to describe relevant information. Once the user is finished reading the page, he/she can click a button to go to the home page or simply select a link from the static menu choices. Each page for the cinematic elements describes that particular tool of cinema through the use of appropriate text, illustrative video, and audio. Each page also provides the user the ability to print text from the slide for a handout. The main Home page allows to user to open a word or notepad document containing all text for the elements. The main Home page also allows the user to engage in a random comprehensive question quiz.

2.1.2 Interface Design/Navigation

The interface is designed to be simple, yet appealing and very user friendly. The screen size is 850 x 650 pixels. The menu items resemble chapters like in an electric book. The navigation buttons are consistent throughout the application as universal buttons (Figure 3). Also, the text menu chapters on the left pane are universal; therefore the user may pick a new topic at anytime in the project. Figure 2 shows a screenshot of the main menu interface.



Figure2. Main Menu Screen

2.1.3 Icons/Graphical Symbols

The icons shown below are universal buttons; therefore, they are used throughout the application.

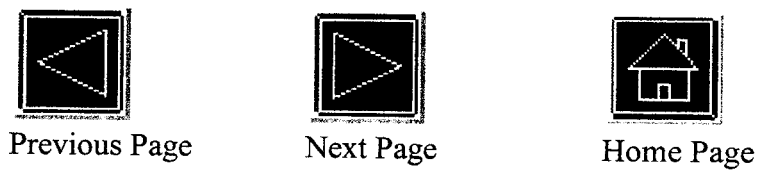


Figure 3. Universal Buttons

2.1.4 Color Scheme

I have chosen to keep a very simple color scheme. The background is a light blue; the menu choices are black and turn white upon mouse over. Once the menu choice is selected, it is displayed aligned to the top right of the screen in white, bold text with a Comic Sans Ms font. Yellow is used for important text, to keep colors easy on the users' eyes as well as draw attention. The remaining text will be white with the blue background in Arial font.

2.1.5 Help

The application includes a help link to display a screen informing the user of all relevant help topics for the application.

2.1.6 Quiz

The application includes a quiz button to allow the user to take a comprehensive quiz while on the main Home page of the application. The quiz includes randomized questions so the user will not get the same question two times in a row.

3. Deliverables

To develop a user friendly and successful project the design phase was used to provide the following deliverables:

1. Introduction splash screen to introduce the content of the Film as Art Instructional DVD.
2. Multimedia elements to inform the prospective student of the tools of cinema through:
 - Appropriate text
 - Illustrative video
 - Appropriate audio

Appropriate text is used to explain each aspect of cinema. A short clip from a DVD movie will be included to illustrate each explanation of the aspect of cinema. The DVD must be downloaded to the hard drive, converted to a different file type such as .mov or .mpg. The DVD must then be edited through a video editor to select the precise scene to be shown. The video editor is used to compress the file size of the clip. Finally, the DVD undergoes another conversion to an .flv (Flash Video File) extension in order for the video to be loaded externally into Flash. Any photos shown will also be used to support the material being presented. Audio will be included with the DVD clip.

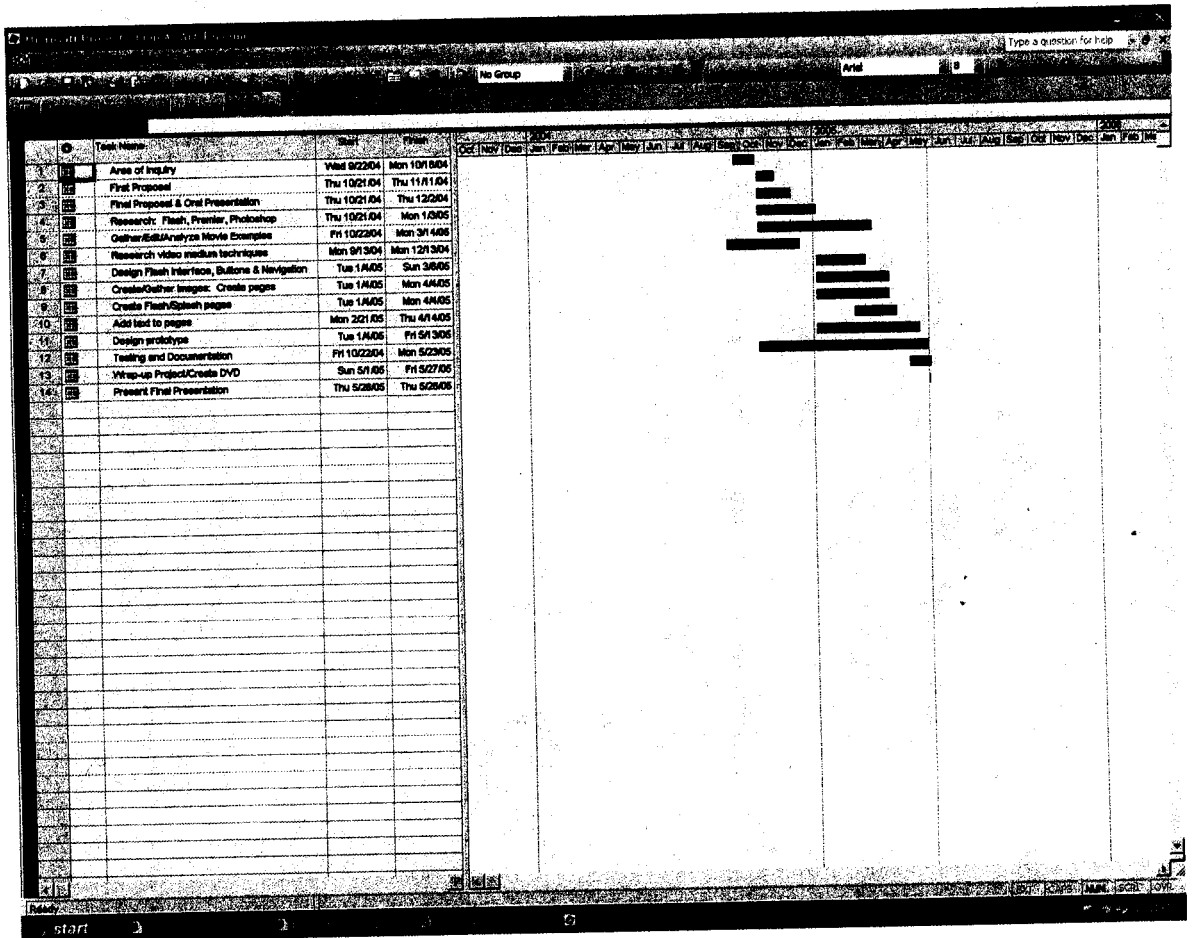
3. A visual graphic progress bar to assure the user that the DVD has not frozen and is loading relevant data.
4. Ability to print text through the implementation of ActionScript 2.0 using the PrintJob class of Flash.
5. A quick facts pop-up screen of each example movie clip to show the information on the movie. This includes actors and production information.
6. A comprehensive quiz to reinforce the aspects of cinema. The quiz includes random questions and the user has the ability to pick the question length from a predetermined number of question length choices.

4. Design and Development

4.1 Budget

Hardware	Cost	Quoted From
AMD Athlon XP 2600+ 2.13 GHz Processor	\$ 78.00	www.pricewatch.com
512 Mb SDRAM PC133	99.99	www.crucial.com
NVIDIA GeForce2 MX 440 AGP8x 64 Mb DDR TVOUT	47.00	www.pricewatch.com
Maxtor 80.0 Gb Internal EIDE 7200 RPM Hard Drive	70.00	www.pricewatch.com
TDK Internal indiDVD±R/±RW/CD	189.99	www.tdk.com
Epson Perfection 1650	164.88	www.amazon.com
Windows 2000	319.00	www.microsoft.com
Software		
Macromedia Flash MX Professional 2004	\$699.00	www.macromedia.com
Adobe Premier 6.0	449.00	www.ebargainsoftware.com
Adobe Photoshop 6.0	165.75	www.amazon.com
Goldwave Digital Audio Editor v.5.08	45.00	www.goldwave.com
Sorenson Squeeze v 4.0 for Flash MX	119.00	www.sorenson.com
Xilisoft Video Converter	35.00	www.xilisoft.com/video-converter.html
DVD Shrink 3.2	freeware	http://www.dvdshrink.org/where.html
TOTAL	\$2481.61	

4.2 Timeline



5 Proof of Design

The Proof of Design will show in detail how project deliverables were fulfilled and any challenges encountered.

5.1 Splash Introduction Screen

The introduction of any project is important. The splash introduction page is a visually appealing screen used to introduce the content of the DVD. The photos of the various actors move from point to point on the screen playing along with an introduction

song (Figure 4a). The splash screen shows the title of the project, Film as Art Multimedia DVD (Figure 4b).



Figure 4a. Splash Screen

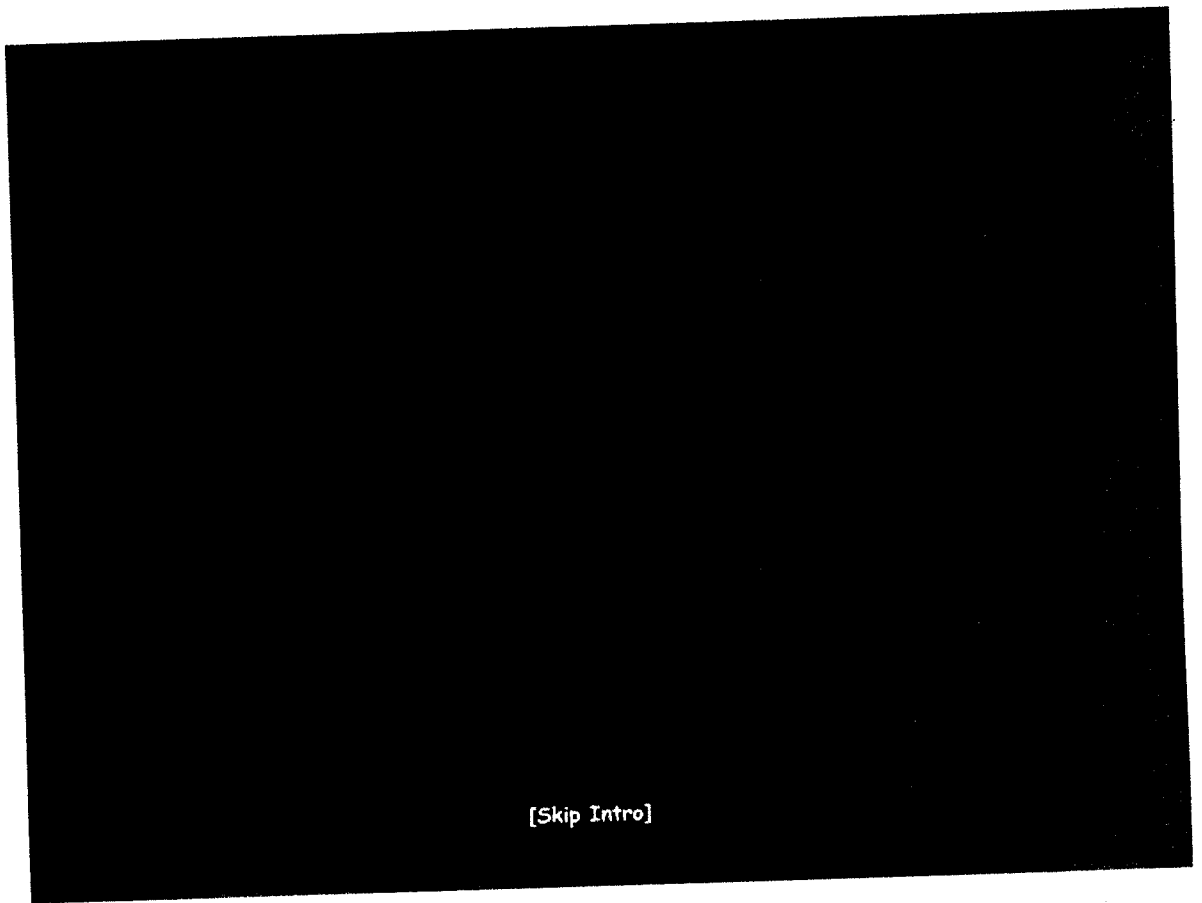


Figure 4b. Splash Screen

5.2 Multimedia Elements

Multimedia elements of text, video, and audio are used to inform the prospective student of the tools of cinema. Appropriate text is used to explain each aspect of cinema. Various video clips from various DVD movies are used to illustrate each explanation of the aspect of cinema. Audio is included with the video clip. After the splash screen completes, or the user hits the “skip intro” button, a home page appears (Figure 5).

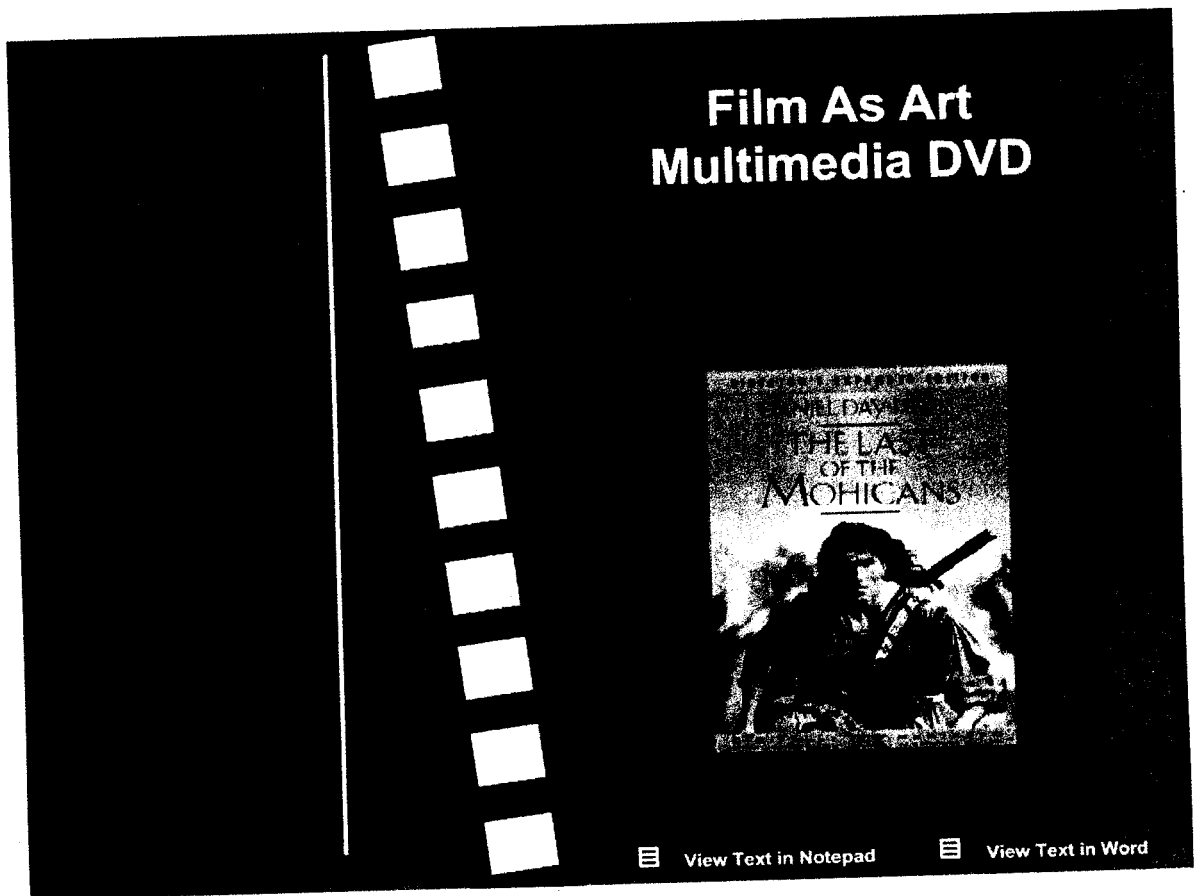


Figure 5. Home Page

From the home page the user can click the respective links for the aspects of cinema, or the cinematic elements. Once a cinematic element is picked the user will see the multimedia elements of text, and video, as well as hear the audio (Figures 6 and 7). The cinematic element menu choices will maintain their position throughout the presentation. Therefore, the user does not have to go to a home page to click another link.

Sound

Students of film know that one of the most significant changes in the film industry has been the introduction of sound. Today when we discuss sound in film, we often think, "soundtrack." Although this is important in a film, sound is much more than this. It encompasses dialogue, and off-screen sounds. It also enables characters to be better understood, by giving them accents, dialects, and symbols with which they can better explain themselves.

 Print Slide



Figure 6. Sound Element

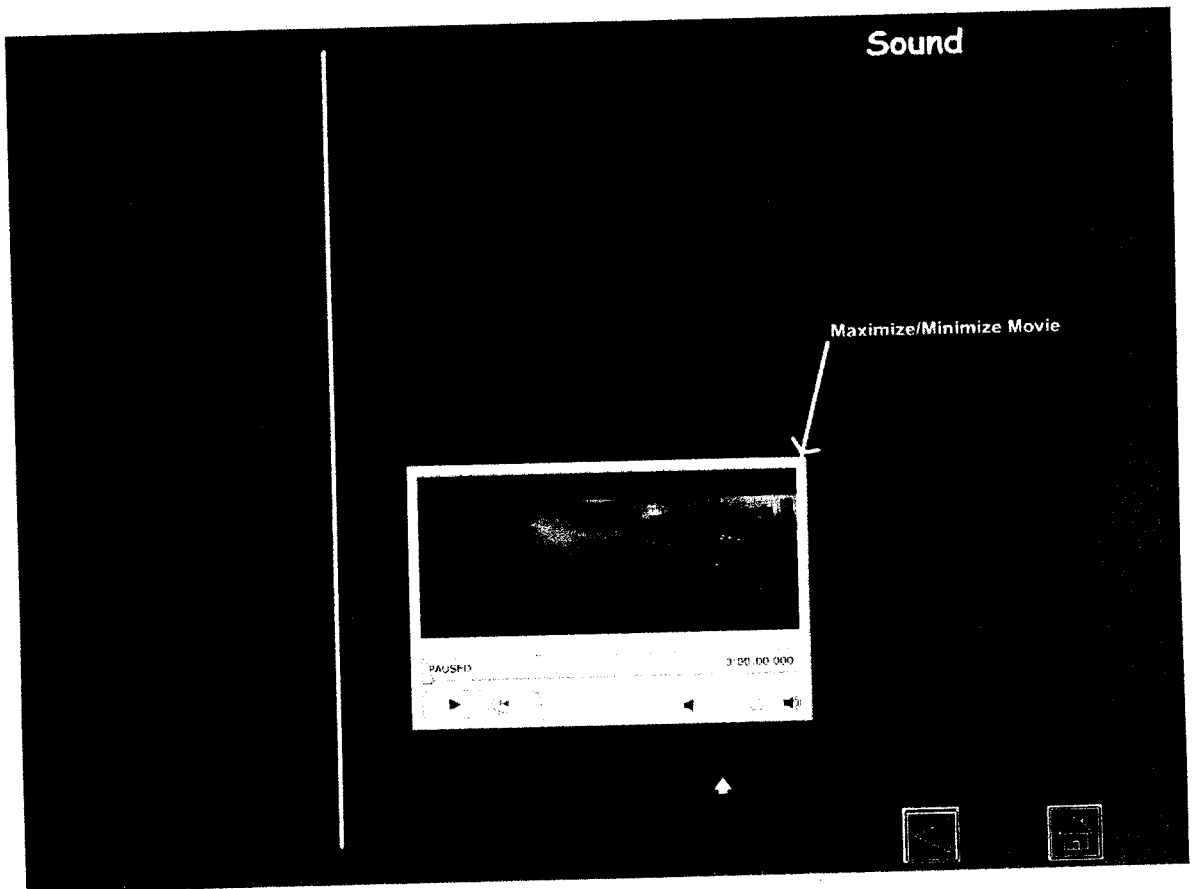


Figure 7. Saturday Night Fever Video Clip

5.3 Progress bar

When the user clicks a cinematic element link a visual graphic progress bar is displayed until the text and film clips are loaded. During the load a quote will be displayed (Figure 8). There is a different quote displayed for each cinematic element.

Cinematic sound is that which does not simply add to,
but multiplies, two or three times, the effect of the
image.

--Akira Kurosawa

LOADING



Figure 8. Progress Bar

5.4 Print Text

Every page with text has a print button included in order to print that pages text (Figure 9). The ability to print text from the pages creates the opportunity to use the printed page(s) for handouts or class discussion. Through the print dialogue box the user has the ability to print as many copies as needed (Figure 10).

Sound

Students of film know that one of the most significant changes in the film industry has been the introduction of sound. Today when we discuss sound in film, we often think, "soundtrack." Although this is important in a film, sound is much more than this. It encompasses dialogue, and off-screen sounds. It also enables characters to be better understood, by giving them accents, dialects, and symbols with which they can better explain themselves.

Print Slide



Figure 9. Print Slide

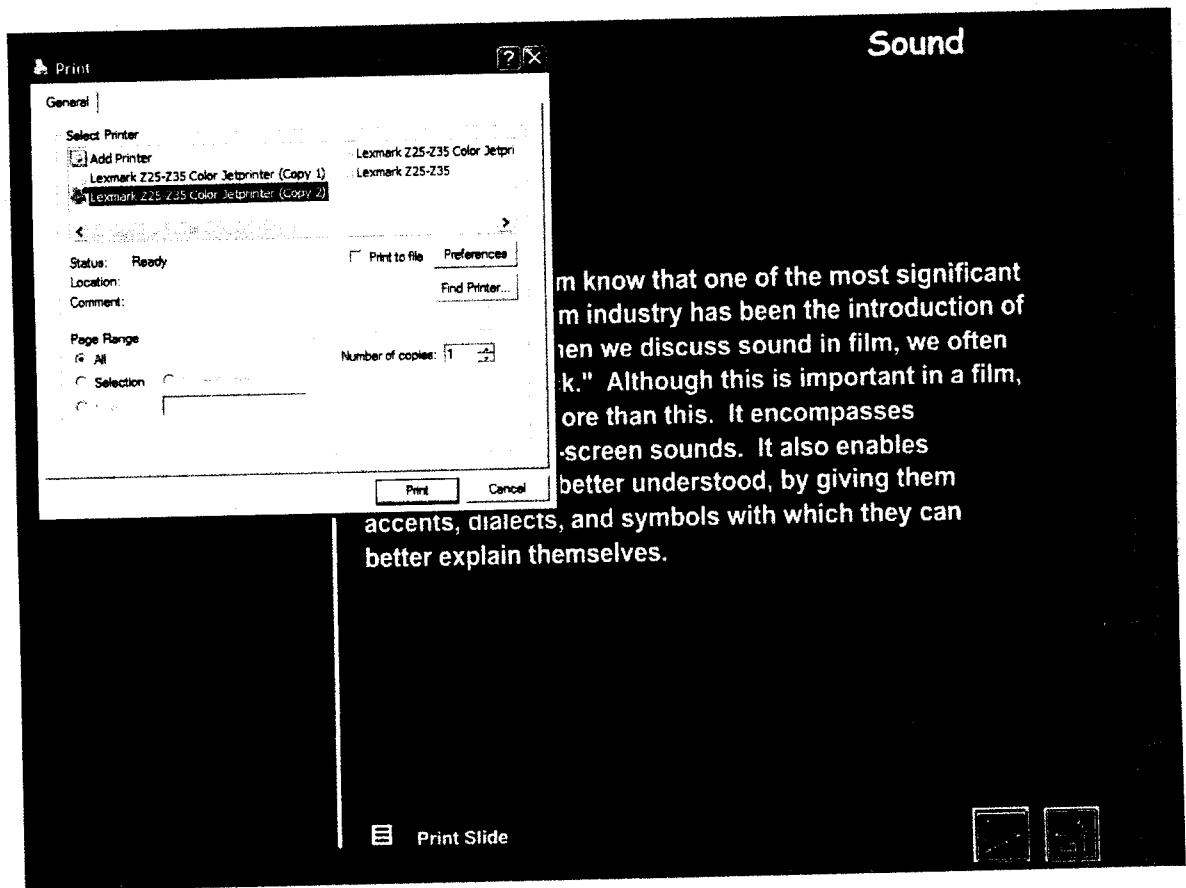


Figure 10. Print Slide Dialogue Box

When at the Home page the user has the ability to open the entire text document of the elements. This can be done by either clicking to view the document in Notepad or in Word (Figure 11). From the respective document the user may print all text or specific cinematic elements.

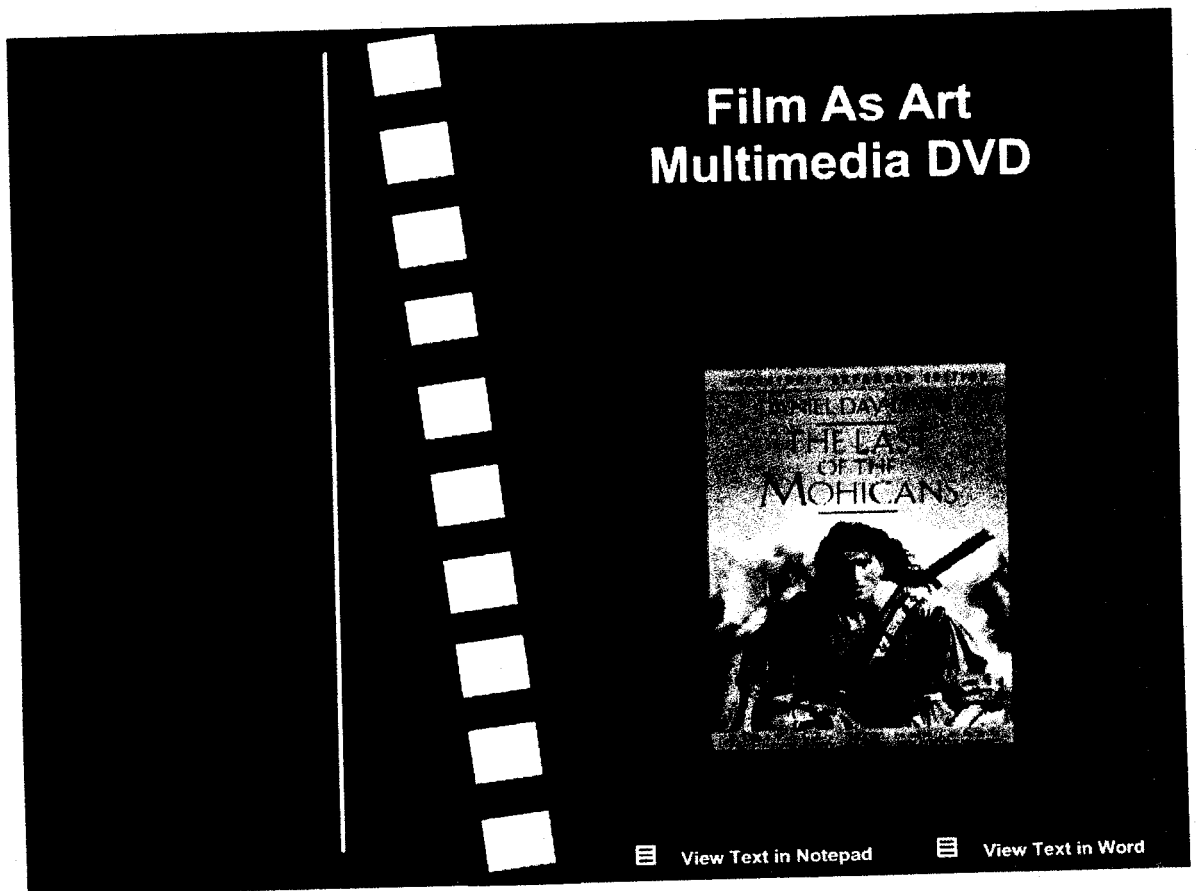


Figure 11. View text in Notepad or Word document

5.5 Quick Facts Pop-up

The quick facts pop-up screen may be utilized to view information about the movie clip. The title of the movie, the time of the movie clip, actors, directors, producers, distributors, and the rating of the movie are included in the pop-up screen (Figure 12).

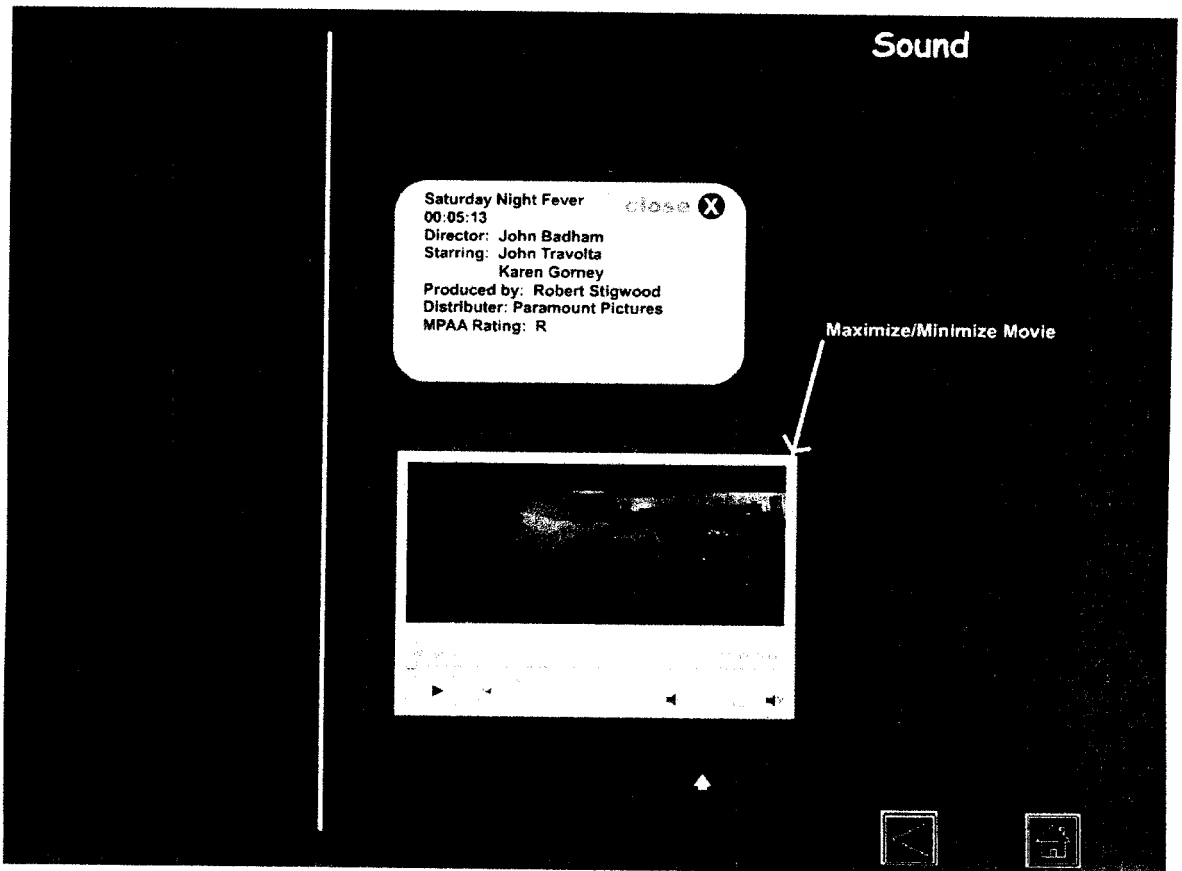


Figure 12. Quick Facts Pop-up

5.6 Quiz

A comprehensive quiz is included to reinforce the aspects of cinema. All quiz questions are taken from text in the cinematic elements. From the Home page the user can choose to take the quiz (Figure 13). The quiz will choose random questions taken from a questions database in an XML file.

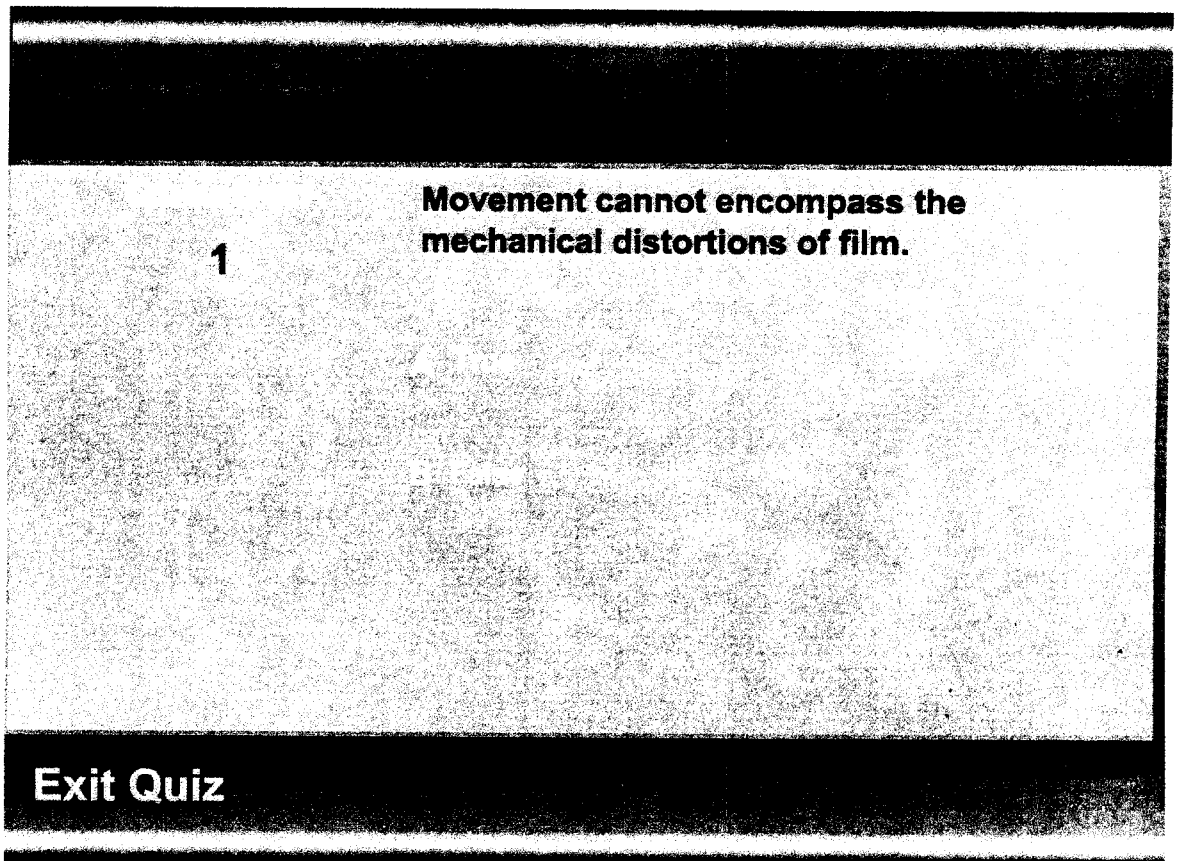


Figure 13. Quiz

The quiz is meant to be taken in a classroom lecture type setting. Therefore, the user will get a correct or incorrect response before moving on to the next question (Figure 14).

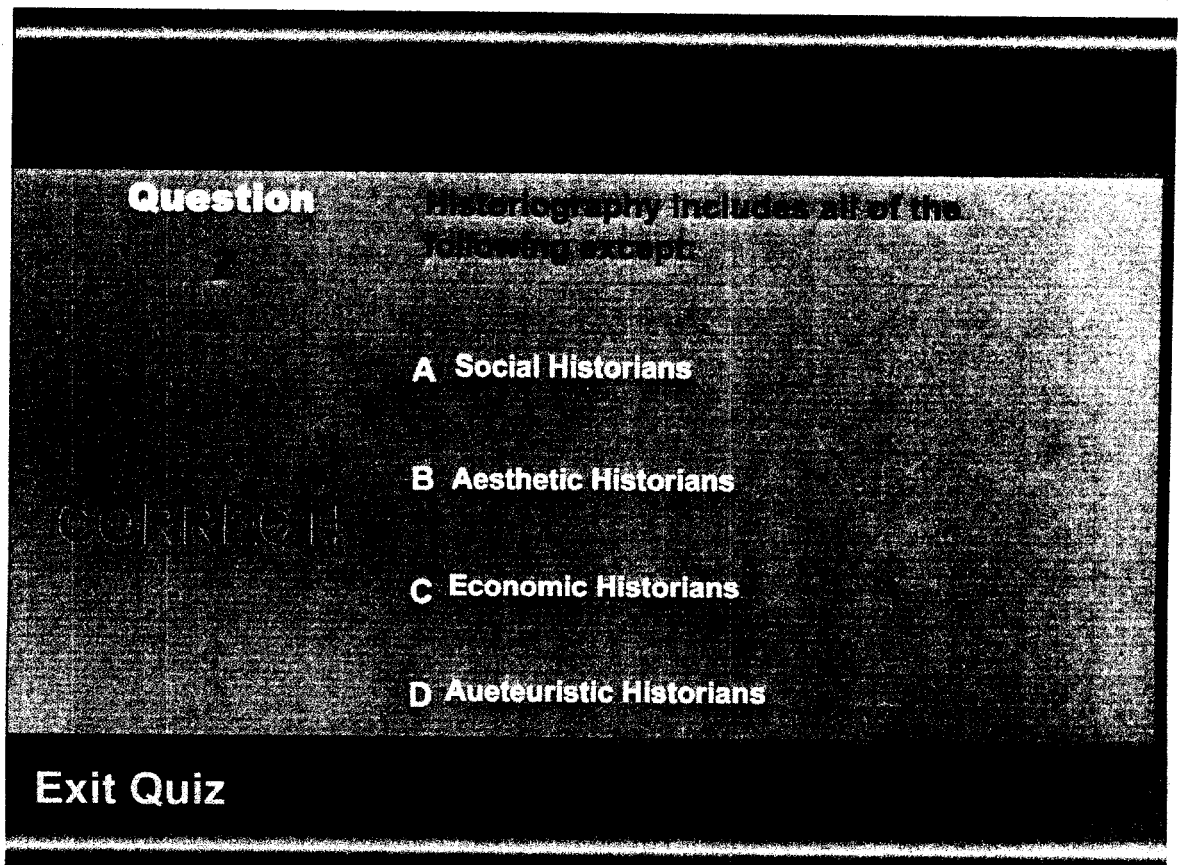


Figure 14. Correct Response

The quiz will display the number of correct/incorrect responses and the respective quiz grade (Figure 15). There is an option to play the quiz again or return to the home screen.

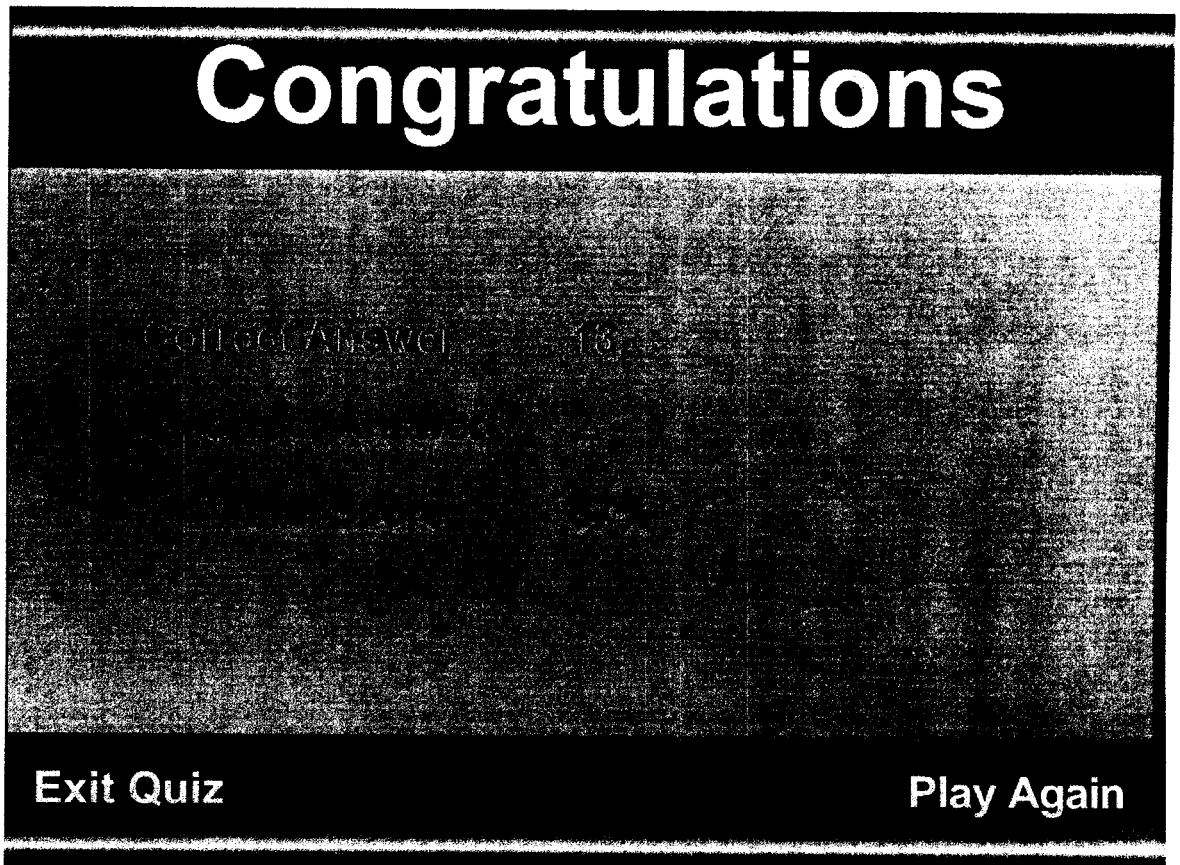


Figure 15. Quiz Results

6. Testing

Testing of the project encountered many challenges. Printing proved to be a much harder task than planned. The text boxes had to be converted into movie clips in order to print only the text on the page. There was too much text on each page, therefore, the text had to be broken into smaller chunks and spread out onto multiple pages. The text size was small when tested on a projector; it was changed from 12 point to 18 point font. The Flash Video Import wizard in Flash MX 2004 Professional proved to be inadequate. Video sizes made the project slow to a halt, sometimes freeze the computer. In order to import videos, they had to be converted into an .flv (Flash Video File) and imported into

flash dynamically at runtime. The program files were also split into multiple smaller files to improve load and runtime.

The project was tested by fellow students, instructors, friends and family, and finally Dr. Epstein herself. This testing proved that the DVD automatically opened, all audio, video, and images loaded correctly and in a timely manner. All broken links, navigational errors, and punctuation were noted and corrected. The project was tested on Microsoft operation systems including: Windows 98, Windows 2000, Windows XP, and Windows 2003 Server.

7. Conclusion and Recommendations

7.1 Conclusions

This project was created in response to Dr. Grace Epstein's desire to create a multimedia project with film clips in order to demonstrate to her students the various aspects of film. All aspects of film contain text to describe that particular element as well as at least two film clips to demonstrate the text. This is an excellent example of what can be done with multimedia to enhance the perspective learners understanding of course material. The main tools used to create the project were Macromedia Flash MX 2004 Professional, Adobe Photoshop 6.0, Adobe Premiere 6.0, and the Xilisoft Video Converter. The project was completed through the three quarter sequence of Senior Design. In a real-world setting, to successfully complete the project a budget of \$2481.61 excluding labor costs. The project fulfills all Design Freeze deliverables.

7.1 Recommendations

Quite a few problems were encountered while working on this project. Macromedia Flash MX 2004 Professional is much harder to use than I had ever expected. At least a month is required to obtain a good understanding of how to use Flash.

Printing text from a slide proved to be quite difficult. Text cannot be printed unless the entire page is printed. The text had to be made into a movie clip. Movie clips can be placed inside of one another and the main movie clip is level 0. In order to print the text, the text movie clip had to be called and sent to the printer, then deleted. This assured no unnecessary information was printed, such as photos or navigation buttons.

Another recommendation is importing videos into Flash. The file size increases drastically when numerous videos are necessary. This also hampers the testing of the project. Instead of importing video into Flash, use Sorenson Squeeze to convert the video into an .flv file. Within Flash MX 2004 Professional use the MediaPlayer component to load the .flv file dynamically on runtime. This will show a significant decrease in the file size of the project.

I would recommend using a stronger multimedia authoring program such as Macromedia Director instead of Flash MX 2004. Flash ultimately proved to be very time consuming to use and difficult to build large scale projects.

Appendix A

Code Snippet

The following is the code produced to connect to the XML file to display the comprehensive quiz.

```
fscommand("fullscreen", "true");

// Load the quiz data from the xml file quiz.xml
function QuizItem(question)
{
    this.question=question;
    this.answers=new Array();
    this.numOfAnswers=0;
    this.correctAnswer=0;
    this.getQuestion=function()
    {
        return this.question;
    }

    // function to return the question of this item
    this.addAnswer=function(answer, isCorrectAnswer)
    {
        this.answers[this.numOfAnswers]=answer;
        if (isCorrectAnswer)
            this.correctAnswer=this.numOfAnswers;
        this.numOfAnswers++;
    }

    // function to return the n-th answer
    this.getAnswer=function(answerNumberToGet)
    {
        return this.answers[answerNumberToGet];
    }

    // function to return the index of the correct answer
    this.getCorrectAnswerNumber=function()
    {
        return this.correctAnswer;
    }

    // function to check if the number passed is the correct answer index
    // if it is correct answer go to Correct frame
    // if incorrect go to Wrong frame
}
```

```

this.checkAnswerNumber=function(userAnswerNumber)
{
    if (userAnswerNumber==this.getCorrectAnswerNumber())
        gotoAndPlay("Correct");
    else
        gotoAndPlay("Wrong");
}

// function to show number of answers, this allows for multiple choice
// as well as true/false
this.getNumOfAnswers=function()
{
    return this.answers.length;
}
}

// function which parses the XML data into the data structure
function onQuizData(success)
{
    var quizNode=this.firstChild;
    var quizTitleNode=quizNode.firstChild;
    title=quizTitleNode.firstChild.nodeValue;

    var i=0;
    // <items> node follows <title> node
    var itemsNode=quizNode.childNodes[1];
    while (itemsNode.childNodes[i])
    {
        var itemNode=itemsNode.childNodes[i];

        // <item> node consists of <question> node and one or more
        <answer> nodes
        // <question> always comes before <answer>s (node 0 of <item>)
        var questionNode=itemNode.childNodes[0];
        quizItems[i]=new QuizItem(questionNode.firstChild.nodeValue);

        var a=1;

        // <answer> node follows <question> node
        // goes through every answer and adds the answers to the data
        structure
        var answerNode=itemNode.childNodes[a++];
        while (answerNode)
        {
            var isCorrectAnswer=false;

```

```

        if (answerNode.attributes.correct=="y")
            isCorrectAnswer=true;
        quizItems[i].addAnswer(answerNode.firstChild.nodeValue,
            isCorrectAnswer);

        // goto the next <answer> node
        answerNode=itemNode.childNodes[a++];
    }
    i++;
}

// Start the quiz, go to the choice frame for user to select number of questions
to include
gotoAndStop("Choice");}

// create an XML object called myData
// create array called quizItems
var quizItems=new Array();
var myData=new XML();
myData.ignoreWhite=true;

// "onLoad" functions called and Flash will notify us when file is completely loaded
// override the onLoad function with onQuizData - when the file is loaded the
onQuizData function is called
// after onQuizData parses XML file, it creates a set of objects called quizItems
// quizItem is the structure of the XML file, an <item> that contains 1 question
// 4 answers, one of which is the correct answer
myData.onLoad=onQuizData;
myData.load("quiz.xml");
// tell Flash to stop until entire XML file is loaded
// The code continues when the XML data is completely loaded
stop();

```

References

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