

The Design of Instruction as Applied to Distance
Delivery Medium Development in Higher Education

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Stage 1: Defining the Instructional Problem

Instructional Need

As Distance learning technologies evolve, the need of proficiency in those technologies grows as well. A big issue for students and instructors alike is access to technology and as most households include a DVD player, this medium is a very convenient one to use as a learning tool. This course seeks to train the novice user, specifically Higher Education Faculty, on the basic authoring of a DVD, for the purpose of distance delivery.

Needs assessment Process

The goals of the current Four year university's distance learning program is to give students access to education where coming to campus every day is not a realistic possibility, for example, full time workers, people living far away from the university, etc.

This system is designed already to accommodate as many students as possible, but the question of new technologies and availability of technologies leads to the analysis based on the discrepancy model, not the innovation model.

First an assessment would be done of the current state of the institution's distance delivery. This would include surveys of what mediums are used and what technology is needed for the students to access them. Next, a survey would be conducted to find how many students actually have the needed technology in their homes, as well as other forms of technology that may be used in a distance delivery system. From the results of these surveys a determination could be made about the need to add or revise the mediums of delivery.

An analysis would then be done that looks at the success rate for students who have access to these technologies and those who don't. A comparison of the Instructor's success rates between distance and in-person classes would also be needed as part of this. These Analyses would again show whether an addition or revision of medium was needed or whether more instruction on existing mediums is needed for the educators.

If it turns out that there is a need for a revision or addition of mediums then the following would take place.

Instructors would be interviewed to find:

- What mediums are they adept with creating?
- Do they have the experience necessary to create others if needed?
- How much time is needed per day to facilitate the current methods of delivery?
- Do they have any problems with the system of delivery as it stands?

Other questions to ask of the institution's Technology department would be:

- Are there other technologies available to the distance ed. instructors that they aren't using? If so, what?
- Are there professionals at the university that could assist the instructors in learning this technology

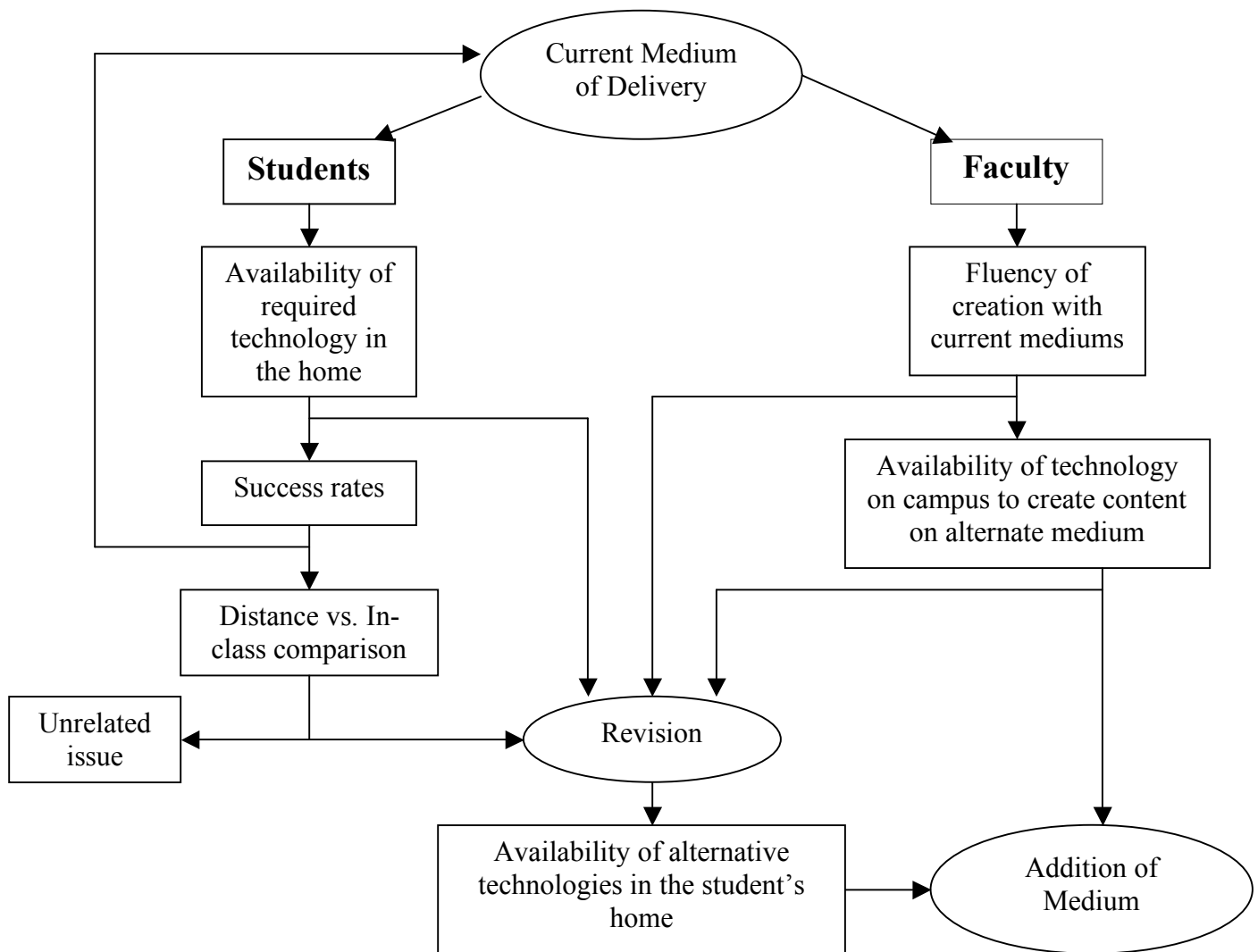
Students would be interviewed to find:

- Do they feel as though the current methods of delivery meet their needs? If no, what changes would they make?

The results of these interviews would help to solidify the difference between the current state of the delivery system and how the system should be functioning.

In order to determine if instruction is the answer, a few more assessments need to be done.

- If students don't have the technologies needed in the home, are they at least available on campus?
- Do the students who sign up for these classes have the necessary skills to use the mediums in order to effectively take part in the class.
- If students are not succeeding in their distance ed. classes, a comparison must be done to their in-person classes.



Needs Assessment Findings

Currently, the university's distance delivery program uses online discussion, presentations and assessment, as well as conference call discussion sessions and mailed out documents for reading.

The general population of the students was mailed a survey, including those not enrolled in online classes with 73% of the surveys returned. It revealed that 60% of the students owned a PC, though only 40% owned a PC with access to the internet. Concurrently, those with a LAN line phone, only numbered 15%. The most common piece of consumer technology in the homes of the students was by far, the DVD movie player, either a stand-alone device or part of a desktop/portable computer system.

These numbers were then cross-referenced with the students' grades of distance versus in-person studies. It was found that those students enrolled in distance classes who had the available technology in their homes, received a grade at least 13% higher than those who didn't. These students were forced to either find a computer to use that wasn't their own such as an internet café or come to the school's campus to use its facilities.

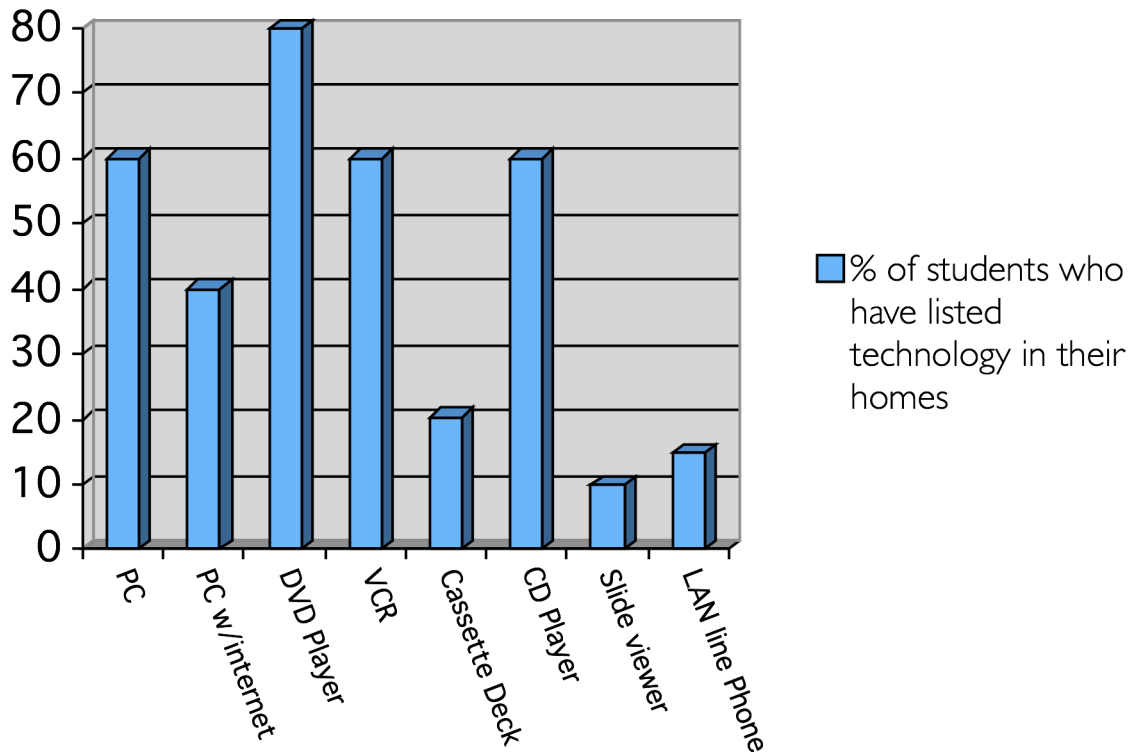
These same students (technology lacking) performed far better in their in-person studies by comparison; and almost on par with the in-class performance of those who own the technology.

As part of the survey, the consensus of the students was that the distance delivery program was mostly unavailable to their needs. They wanted a system that would be easily accessible, possibly portable and easy to work with.

As part of the same comparison, the instructors who facilitated the distance classes came up short in their proficiency of the technology and theories needed to effectively teach an online course. It was also their opinion that the technology used was a little outdated. It was found that 75% of the instructors at the university were familiar with the use of a PC, though only 30% were confident with learning new software. Most of these were only proficient with word processors, database and presentation software.

The University's technology dept purchased 20 new PCs last academic year and has stated that many of them still go unused by the faculty. The training staff are already adept at training the students on new software, and it would not take long to adapt their strategies to assist the faculty.

Figure 1: A Comparison of technology available in the Student's homes.



Problem Statement / Definition

As found in the needs assessment for this course, the mediums for distance delivery for this institution were outdated, and as such the student success rate was not as high as it could be. In addition, the availability of current technology needed for the existing delivery system was quite low, compared to other forms of technology found in the students' homes. The skills needed for the faculty to create other methods of delivery that coincide with the available technologies are lacking. Our research indicates the most availability for the DVD medium, hence the need for the instruction of faculty members on DVD Authoring. Most prospective students for the proposed training course have the prerequisite skills needed to succeed.

Initial Goal Statement

This course would provide higher education faculty members the skills needed to create a stand-alone DVD project for use in distance education, using iDVD.

Learning Environment and Learner Context

This course is designed for higher education, so openness to learning new skills is usually encouraged and embraced by the instructor as well as the learner. Because this may be new ground for most of the students, considerations must be taken seeing as most will be novice computer users, especially when dealing with the subject at hand. The instructor must have

patience for the novice users and encourage the more experienced users to help others who might need it.

The course will be based on a workshop environment, with the instructor modeling objectives, while students follow on their own. The classroom will be in a typical computer lab, including DLP Projection of the instructor's screen, so students may follow along with tasks as requested, on their own screens. The computers will use the latest version of Apple's iDVD software.

Learner Analysis

Some of the faculty who take this course will have very little computer experience, while some will be more proficient. With novice users, it usually comes down to confidence in the environment and OS in which they are working. All of the students will be higher education faculty members, so some may be used to different paces of learning, depending on their area of expertise. Based on this, the course must be a very relaxed environment, with very little stress put on deadlines or perfection of skills. The students must achieve the goal of creating a DVD; the content, technical skill and speed of the creation process are negligible compared to the skills learned.

Stage 2: Identifying Instructional Goals

Learning Goals

Given an Apple Computer and Apple's iDVD software running Mac OSX 10.4 or later and Apple's iDVD 6 software, the learner will be able to author (create) a complete stand-alone DVD project for play on a computer or home DVD player, with customized menus and content such as movies and slideshows.

Type of Learning

This course will involve multiple types of learning, related to each objective

When working to map out the structure of the DVD project, the students will be using a conceptual type of learning, so that they can understand the structure and relationship that exists within the project they are creating. This will assist them in conceptualizing the physical structure of the DVD menu system

Once into the primary part of the course, the students will be involved in a combination of procedural learning styles as well as psychomotor styles. The way they move their cursors on the screen may not be new to them, but the application of that motion will be. Primarily the students will be learning a procedure; the steps needed in order to create their DVD.

Prerequisite Analysis

Students taking this course must know the basics of how to use a computer, including how to use a mouse and keyboard and navigating through a computer's operating system. The Instructional strategies for this course will include the modeling of each performance objective, so familiarly with Mac OSX 10.4 is not required, it is an asset.

It is also recommended that the students have experience watching a DVD movie, and be familiar with how to navigate a commercial DVD's menu system. Again, the concept of a DVD map will be covered in the instructional strategy, so that aspect, though not required is also an asset.

Performance Objectives

Main Step in Instructional Goal	Performance Objective for Main Step
1.0 Map DVD Project	1.1 Given a Pen/Pencil and paper, map out the DVD Project
Subordinate Skills	Sample Subordinate Objectives
1.1 Understand and draw a tree-based chart	1.1.1 Draw a DVD map in the form of a tree-based chart (similar to a family tree) starting with one box; each box representing a menu with submenus extending off with lines linking menus to others

Main Step in Instructional Goal	Performance Objective for Main Step
2.0 Open iDVD 6	2.1 Given an Apple computer with Mac OSX

	10.4 and iDVD 6, find the iDVD icon and launch it
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Main Step in Instructional Goal	Performance Objective for Main Step
3.0 Create a new project and save it in a chosen folder	3.1 Given that iDVD has been launched, and the starting dialog box is open, create a new project, name and save it.
Subordinate Skills	Sample Subordinate Objectives
3.1 Choose an Aspect Ratio	3.1.1 Given the 'create project' dialog box is open, choose an aspect ratio
3.2 Navigate to a specific save folder	3.2.1 Navigate to a folder where the project is to be saved

Main Step in Instructional Goal	Performance Objective for Main Step
4.0 Choose a Theme	4.1 Given that the main iDVD window is open, choose a theme from the theme library, quick preview it and view the DVD map
Subordinate Skills	Sample Subordinate Objectives
4.1 Quick preview the current item	4.1.1 Given that the main iDVD window is open and a theme is chosen, start the motion of the current item being worked on. 4.1.2 Given that the main iDVD window is open and a theme is chosen, stop the motion of the current item being worked on.
4.2 View DVD Map	4.2.1 Given that the main iDVD window is open and a theme is chosen, view the DVD Map 4.2.2 Given that the DVD Map is being viewed, return to the main iDVD window

Main Step in Instructional Goal	Performance Objective for Main Step
5.0 Customize a Menu	5.1 Given that a theme is chosen, customize the menu by changing text, adding pictures, movies and music.
Subordinate Skills	Sample Subordinate Objectives
5.1 Customize Text	5.1.1 Given that a theme is chosen, customize the text on the menu.
5.2 Add a picture	5.2.1 Given that a theme is chosen navigate to the Media Library. 5.2.2 Given that the Media Library is open, navigate to the Photo library 5.2.3 Given that the Photo Library is open, drag a photo to the Drop Zone.
5.3 Add music	5.3.1 Given that a theme is chosen navigate to the Media Library. 5.3.2 Given that the Media Library is open,

	<p>navigate to the Audio library</p> <p>5.3.3 Given that the Audio Library is open, choose a song and preview it.</p> <p>5.3.4 Given that the Audio Library is open, drag a song to the Drop Zone.</p>
5.4 Add a movie	<p>5.4.1 Given that a theme is chosen navigate to the Media Library.</p> <p>5.4.2 Given that the Media Library is open, navigate to the Movies library</p> <p>5.4.3 Given that the Movies Library is open, choose a movie and preview it.</p> <p>5.4.4 Given that the Movies Library is open, drag a movie to the Drop Zone.</p>

Main Step in Instructional Goal	Performance Objective for Main Step
6.0 Add a Submenu	6.1 Given a Theme is chosen, add a submenu
Subordinate Skills	Sample Subordinate Objectives
6.1 Rename new submenu	6.1.1 Given that 'My Submenu' appears in the current menu, rename it
6.2 Choose a Submenu layout	<p>6.2.1 Given that the new submenu's name appears on the current menu, navigate to the submenu</p> <p>6.2.2 Given that the new submenu is open in the main windows, choose a menu layout from the theme panel.</p> <p>* Given that the new submenu layout has been chosen, students may wish to return to step 5.0 and customize this new menu</p>

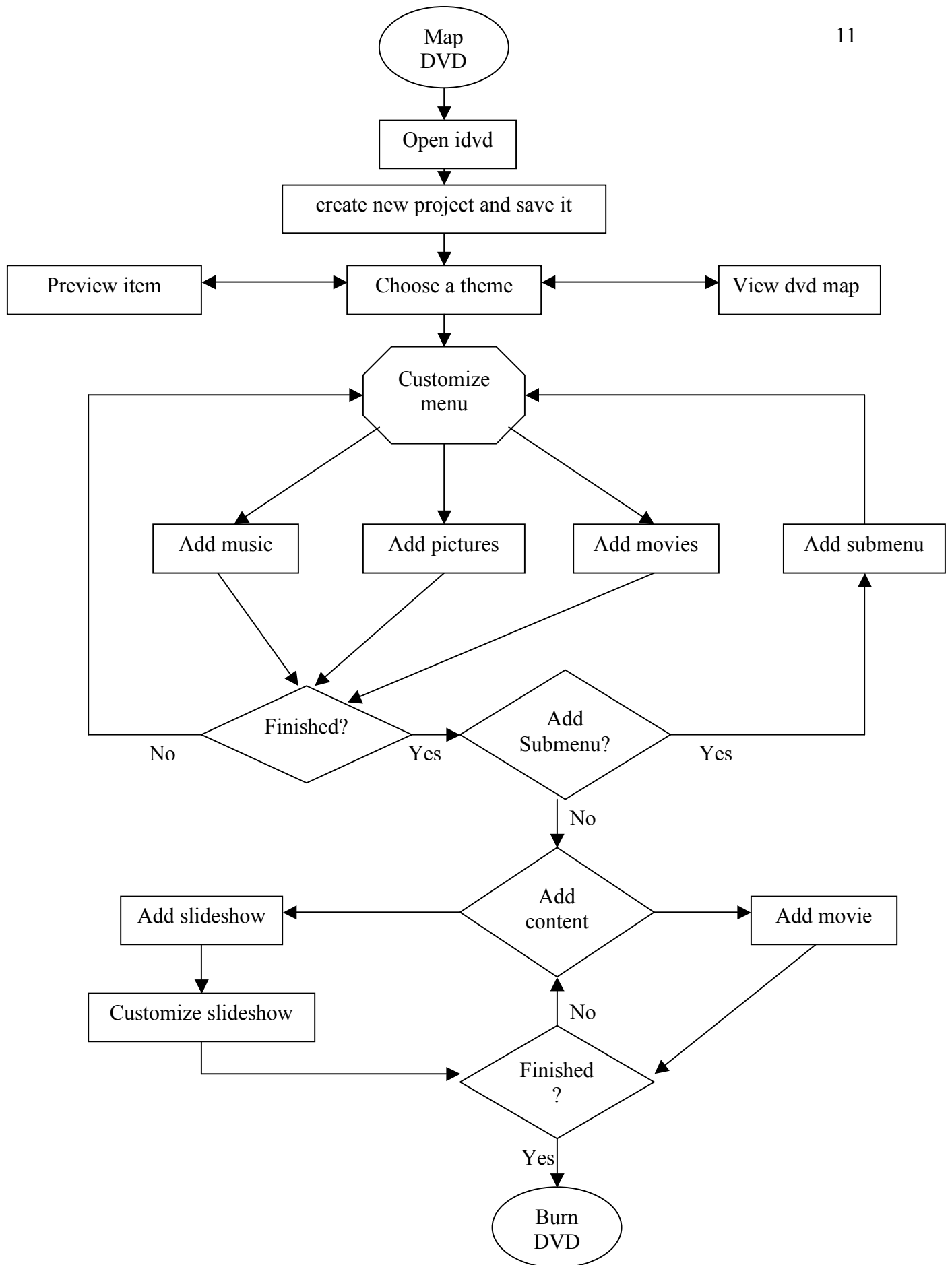
Main Step in Instructional Goal	Performance Objective for Main Step
7.0 Add a movie	7.1 Given a Theme is chosen, add a movie
Subordinate Skills	Sample Subordinate Objectives
7.1 Add a movie	<p>7.1.1 Given that a theme is chosen navigate to the Media Library.</p> <p>7.1.2 Given that the Media Library is open, navigate to the Movies library</p> <p>7.1.3 Given that the Movies Library is open, choose a movie and preview it.</p> <p>7.1.4 Given that the Movies Library is open, drag a movie to the 'Add Movie Here' button.</p>
7.2 Rename a movie	7.2.1 Given that a movie button appears in the menu, rename it.

Main Step in Instructional Goal	Performance Objective for Main Step
8.0 Add A Slideshow	8.1 Given that a theme has been chosen, add a slideshow

Subordinate Skills	Sample Subordinate Objectives
8.1 Add a Slideshow	8.1.1 Given that a theme is chosen navigate to the Media Library. 8.1.2 Given that the Media Library is open, navigate to the Photo library 8.1.3 Given that the Photo Library is open, drag multiple photos to the 'My Slideshow' button.
8.2 Rename a slideshow	8.2.1 Given that the 'My Slideshow' button appears in the menu, rename it.

Main Step in Instructional Goal	Performance Objective for Main Step
9.0 Customize a Slideshow	9.1 Given that a Slideshow has been added, customize it.
Subordinate Skills	Sample Subordinate Objectives
9.1 Open a Slideshow	9.1.1 Given that a Slideshow button appears on the menu, open the slideshow
9.2 Add Music	9.2.1 Given that the Slideshow customization window is open, navigate to the Media Library. 9.2.2 Given that the Media Library is open, navigate to the Audio library 9.2.3 Given that the Audio Library is open, choose a song and preview it. 9.2.4 Given that the Audio Library is open, drag a song to the Speaker icon.
9.3 Customize a Slideshow	9.3.1 Given that the Slideshow customization window is open and music has been added, change the duration, transition and volume of the slideshow
9.4 Preview and Finish Slideshow	9.4.1 Given a slideshow has been customized, preview it 9.4.2 Given a slideshow is complete, return to the menu

Main Step in Instructional Goal	Performance Objective for Main Step
10.0 Burn DVD	10.1 Given that an iDVD project is open, preview it, then Burn the project to a blank DVD
Subordinate Skills	Sample Subordinate Objectives
10.1 Preview the DVD Project	10.1 Given a DVD project is open, navigate to the main menu and preview the whole project.



Stage 3: Assessment Plan

The assessment plan for this course will be based on the Criterion Referenced model as the objectives outlined in Stage 2 need to be assessed through the learner's competence.

As this course is designed for professional development within higher education, the assessments outlined will not be based on accuracy of first-time performance, but on continuing reinforcement throughout the duration of the course. If students cannot demonstrate the objectives outlined in Stage 2 after the first attempt, the instructor will tutor the students until they can, and encourage other students to do the same.

Assessment Activities

Entry Skills Assessment

In accordance with the Prerequisite analysis in Stage 2, Students must demonstrate to the instructor that they are competent in the use of a computer; using a mouse and keyboard, and able to navigate through the computer's file structure using these devices.

Pre-Assessment

As part of Instructional Goal 1.0 as outlined in Stage 2, students will be informally asked to pair up with a classmate and discuss their previous experiences watching a DVD movie at home, and how they think it might be laid out in terms of menu navigation. An appraisal of the results of this exercise will assist the instructor in determining whether the students understand the concepts behind DVD menu structure.

Ongoing in-class Assessment

As learners move through performing the objectives outlined in Stage 2, they must be able to demonstrate these objectives to the instructor before he or she moves onto modeling the next Objective. If the students fail to demonstrate the skills needed, the instructor will tutor the student until they can demonstrate it, before moving on.

Post Assessment

The students will submit a completed DVD project, burned to a blank DVD to the instructor for un-graded appraisal. The instructor will determine whether all the objectives outlined in stage 2 have been met by checking the content of the finished DVD project. It will also serve to determine whether the students can meet the objectives without reinforcement.

Tables of Assessment

Table 1: Stage 2 Objectives (Part of Ongoing Assessment outline above)

Due to the sequential nature of this course, each instructional goal described in Stage 2 will serve as objectives for assessment, with each having a different number of items ascribed to each objective, related to their sub-objectives.

	Form	Number of items	Scoring Method	Criteria Level
Objective 1.0	STER	1	S/U	80%
Objective 2.0	STER	1	S/U	100%
Objective 3.0	STER	3	S/U	100%
Objective 4.0	STER	5	S/U	100%
Objective 5.0	STER	4	S/U	100%
Objective 6.0	STER	3	S/U	100%
Objective 7.0	STER	2	S/U	100%
Objective 8.0	STER	2	S/U	100%
Objective 9.0	STER	4	S/U	100%
Objective 10.0	STER	2	S/U	100%

STER

Defined as Student Teacher Evaluation and Reinforcement. In this method of assessment, after the instructor models each objective for the learners to follow, the instructor tutors learners themselves or encourages other students to do the same. From this process the learners will exhibit the skills needed to reach each objective.

As this course is not designed on a graded scale, the scoring method will be limited to Satisfactory / Unsatisfactory assessment.

Table 2: Assessments

	Form	Number of items	Scoring Method	Proportion
Entry Skills	Observation	1	S/U	.10
Pre-Assessment	Observation	1	S/U	.10
Ongoing Assessment	STER	10	S/U	.60
Post Assessment	Finished Project	1	S/U	.20

The Assessment activities outlined above will also serve as an indicator to student progress in the course. As this course is designed to be an informal tutorial environment, the assessments will provide the instructor with the necessary information to provide better reinforcement for the students.

Validity and Reliability

The soul purpose of assessments outlined for this course is not to judge the success or failure of the learners but to determine how to provide a better learning environment for them. As a result of assessments, the instructor will implement more specified and concrete reinforcement techniques.

Example: As part of the Pre-Assessment, if the Instructor is listening in on a conversation about DVD experiences and the students are talking about watching VHS movies as a child, this would indicate to the instructor that reinforcement is needed. A Change of direction in the conversation would be suggested based on the assessment.

Stage 4: Instructional Strategies

Organizational Strategy Characteristics

The body of the instruction of this course will be based upon the complex serial procedural strategy model, with each objective outlined in Stage 2 of this design, falling into broader general branches of instruction.

Introduction

- 1.0 Map DVD Project
- 2.0 Open iDVD 6
- 3.0 Create a new project and save it in a chosen folder

Menu work

- 4.0 Choose a Theme
- 5.0 Customize a Menu
- 6.0 Add a Submenu

Adding Content

- 7.0 Add a movie
- 8.0 Add A Slideshow
- 9.0 Customize a Slideshow

Conclusion

- 10.0 Burn DVD

Content will be presented in a World-Related sequencing structure as to give the students the most accurate learning experience possible. To elaborate, each task as outlined above occurs in the order in which a professional DVD designer might work, and exposing the learners to this real-world procedure would be most beneficial.

Macro Procedures

Location and Data

This class will be taught in a computer lab environment, with each individual learner having their own Apple computer with iDVD 6 in front of them. A similar computer station will be set up in front of the class for instructional use, which will be connected to a multimedia projector (LCD, DLP or other technology) for the instructor to model on.

The course will also employ use of tutorial data, meaning that pictures, movies and music will already be pre-installed in the appropriate places for the students to follow along with the instructor.

Deploy Attention

The lesson will begin by asking the students if they have had experience watching a commercial movie DVD or educational DVD. They will be asked to pair up and discuss these experiences with a partner.

Establish Instructional Purpose

The Instructor will verbally outline to the students that the goal of this course will be to have them create a DVD of similar quality that they just discussed, using Apple's iDVD 6 software. At the end of the course they will have the skills they need to create a DVD for use in their classes or for another professional educational basis.

Arouse interest and motivation

The instructor will display a commercial DVD on the multimedia projector, with low sound. When the main menu loads, he or she will engage the class in a discussion of what they see and hear. A discussion of how the DVD was created and what elements used will ensue (for example, pictures, movies, music), leading the students to the fact that creation of a DVD is not as difficult as they so thought.

Preview Lesson

The instructor will hand out a one-page mini-syllabus of the forthcoming course. This overview will outline to the students the four main objectives in the course as outlined above, with the subcategories outlined as well. At this point, the instructor will let students know that they may use this handout to take notes if they wish, and that once the course is over, they may look at an online tutorial available at a URL designated on the same handout. (See Appendix)

Body and Extended Lesson Example

Performance Objective 8: Add a Slideshow

The content outlined in this section will provide an example of how a procedural learning style is employed in the main body of the course, with the details of the instructional strategy broken into specific components.

Recall Relevant Prior knowledge

At this point in the course, the learners will have covered Objective 6 and 7, adding a submenu and movie respectively. The learners will have been exposed to the '+' button, which allows for adding of content. The instructor will inquire of the class how they think, based on previous objectives, how to add a movie. The learners will recall the menu that appears when the students click on the '+' button shows 'Submenu', 'Movie' and 'Slideshow'.

Process Information and Examples / Focus Attention / Employ Learning Strategies

Once the answer to the previous question has been established the Instructor will model the entire objective, with the learners watching every step of the way. Its very important at this point that the instructor encourage the students to watch the projection screen and not use their own computers to practice at this point. This will allow the students to focus on each step of the task and not get distracted by their own experiences.

The instructor will then model each step in the performance objective, giving verbal narration as they go.

A note on universal design: In addition to verbal narration, a multimedia tutorial of the class, broken down in to the four main steps outlined above will be available online for the hearing impaired to follow along with, so that written narration of the above mentioned steps can be followed for those who wish to use it.

Instructional Steps for Objective 8

1. Click on '+' button located at the bottom, left-hand side of the window
2. Click Add slideshow
3. To rename the slideshow, click once on the 'My Slideshow' text that appeared in the main viewing windows after the completion of step 2.
4. When the text is highlighted blue, type a new name for the slideshow (chosen by each learner)
5. Navigate to the slideshow, by double-clicking on its name.
6. Click 'Media' on the bottom right-hand side of the main window to bring up the media browser
7. Click 'Photos'.
8. Choose photos to add by shift clicking or ctrl-clicking the chosen files.
9. Drag the chosen files to the main viewing window

Note: Step 6 in the above steps will again employ the recollection of prior knowledge, as the subordinate skills of performance objective 5 (5.3 through 5.4) employ the same skills. In this case, the instructor will again prompt the class for how they think the photos are added to the slideshow.

Practice / Evaluate Feedback

After the modeling is complete, the instructor will announce that he or she will undo what has been just done, by navigating back to the menu and deleting the slidwhos they just added. The instructor will then model again, this time with the students following on their own computers. For each step in the objective, the instructor will again verbally narrate what they are doing, as they do it, and the learners will follow along on their own computers.

Once the second modeling is complete, the instructor will model how to delete their slideshow and encourage the learners to do the same, then to add a slideshow on their own. At this point, the instructor will leave his or her station and provide positive reinforcement in the form of individual tutoring, until each learner is comfortable with every step. (see 'On-going Assessment' in Stage 3)

Conclusion

Summarize and review / Re-motivate and Close

Once all the four main objectives have been covered and practiced, the instructor will again display the same commercial DVD as shown near the beginning of the course. The learners will be asked to refer to their mini-syllabus' while the instructor informally quizzes them on a) what content they see in the menu and b) what objective/category it falls under and c) recall the kinds of content they just worked with (music, movies, pictures). This will lead to a discussion of

the applications for what the students have just learned such as lectures for distance classes, slideshows of art or locations relevant to a class or even study guides for a test.

Assessment

The Instructor will then give students a handout of a homework assignment, which will be due one week from the end of the course. This project will be a summation of the objectives covered in the course, asking students to create their own DVD project with their own content, to be appraised as outlined in Stage 3.

This handout will include a reference to the same online tutorial as noted above, which outlines each objective so that the students can review if they need to.

Delivery Strategy Characteristics

Concurrent with learning objectives outlined in stage 2, the primary delivery for this course will be computer based along with traditional the instruction of learning objectives. Students will have their own computers to follow along with as the instructor models objectives. As the course is based on software, this is the most appropriate medium for the body of the course.

In the introduction and conclusion of the course, an already completed commercial DVD will be employed to engage the students, again to be projected on a large screen at the front of the class.

During the course, a paper medium is employed to allow students direct physical access to course objectives, allowing them to take notes if they should need to, appropriate to each objective.

Each learner will be Higher education faculty, and as such will be familiar with the computer lab environment on their respective campus. As each student is taking this course for the purpose of professional development, the learning environment will cater to what is familiar to the learners.

An online tutorial will also be available, primarily as a study aid after the in-person part of the course is complete. As noted above, it will also be used during the in-person part of the course for hearing impaired learners to follow along with, as it contains written directions. Feasibly, this tutorial could also be adapted in the future to apply to speakers of other languages as well.

This tutorial will be available to learners online and because each learner will have their own work-provided computer in their office or access to campus computer labs, this medium will be readily available to every learner.

Management Strategy Characteristics

Resources

For the in-person body of the course, a computer lab with a multimedia projector connected to one computer is required.

- The computers in this lab should be Apple computers running Mac OSX 'Tiger' 10.4 and have iDVD6, included in the iLife '06 suite pre-installed.
- Pictures, Movies and Music should all be placed in the appropriate folders on the computers to allow students to access them during the course.

- Paper handouts will also be needed to give to students as presented in the Appendix of this document.
- An online tutorial will be stored on the institution's server and linked to on the web for easy access
- To complete the post-assessment homework task outlined in Stage 2, blank DVDs will be provided to each learner
- The instructor's email address will be included on any paper handouts, should students want to ask additional questions.

The instructor will be employed by the institution's technology department and will have a digital video background, and demonstrated experience teaching DVD software applications.

The instructor will create the paper handouts and another employee in the institution's technology department, specializing in multimedia design will be responsible for creation of the tutorial.

In order to create the online and paper resources for this course, as well as plan each instructional event at the micro level, at least 40 work hours over the span of four weeks will be allocated to the preparation of this course. This will allow the instructor and the multimedia designer ample time to work together and independently to create the materials necessary.

The four week timeline will also allow for communication to the institution's faculty regarding the existence of the course and how to sign up for it.

Time

The time needed for this entire course is based upon the learners. They will all be Higher Education Faculty members, and as part of this role, professional development is encouraged and time is usually allotted for this aspect of their jobs. A weeklong tutorial session is, however, quite unrealistic for these learners since they do have to fulfill their main job roles. With these factors considered, this course will be completed in one 3-hour session, with the final project due the following week in a half hour informal follow-up session, which will address any final questions the learners may have. The feedback provided by the instructor on the homework project will be delivered by email.

Budget

As far as a budget is concerned, the institution will already have in place a student and internally funded technology department which is responsible for creating such courses to support the professional development of the faculty.

Formative and Summative Evaluation

Formative Stages

Design reviews

As the design process occurs, each stage will be submitted to the designer's peers in the same department. Ideally, the designer will be one of many with the same position at their institution, with the professional development of faculty and/or student as one of their main professional goals.

These peers will provide feedback in the form of email responses or in-person meetings to discuss how the goals set out in the needs assessment are being addressed in each phase of the design.

After feedback is given, revisions will be made to the design with regards to reasoning behind content and fluidity between the goals and implementation of those goals.

Expert Reviews

Once the materials have been created (ie. Paper outlines and online tutorials), they will be submitted for review to a number of different individuals at the institution.

First, all materials will be submitted to an IT instructor, in order to evaluate the ease of the content, including terms used in instruction, and flow of the content.

Next, the materials will be submitted to the institutions Multimedia design department to evaluate the accuracy of the content and its congruency with the latest version of the software used.

The content will also be submitted to the institution's Education Diversity department to evaluate the content's sensitivity to those with disabilities or other minorities.

From this feedback, revisions will be made to ensure the content present is more congruent with the above-mentioned issues.

One to One Evaluation

In this stage, an email will be sent out to the target audience to call for 3-5 volunteers who will participate in a one time 'trial' course. This will differ from the final course in that the learners will be aware that this is a trial and will be asked to give feedback regarding the instruction as the course proceeds. To facilitate this process, the designer will act as instructor as well, prompting students for the information needed.

To prepare for the next stage, an instructor will be chosen and will sit in as an extra learner, to allow them to observe the designer's plan as it was intended to be implemented, and to provide feedback from another point of view.

After the course is complete, each participant will be interviewed to evaluate issues such as speed of content, ease of terms used and motivation to continue.

From this data, revisions will be made to cater more to the needs of the learner and to address any issues brought up by the prospective instructor.

Small group Evaluation

Next, a larger group will be chosen to participate in a larger 'pilot' course. In this stage, the instructor chosen in the last stage will implement the designer's plan. The learners in this stage will not be asked to give feedback, but instead will be observed, along with the instructor as to how they deal with the materials.

The observation will look for issues relating to prerequisite skills, motivation of the learners, problems encountered with regards to fluidity of content, understanding of content, and the instructor's ability to provide accurate and effective reinforcement techniques.

The length of the lesson will also be evaluated at this time, seeing how long each objective takes to complete and how the pace of the course affects the participants.

At the homework stage of this evaluation, questions submitted to the instructor in the interim week will be screened, as well as the feedback provided by the instructor.

Following the observation phase of this stage, the designer will have a sit-down meeting with the instructor, where they will discuss any incongruence between what each observed and possible solutions to problems observed.

From this data, more revisions will be made to the design, taking into account the previous stages of this evaluation.

Field Trials

This stage will address more administrative issues such as scheduling of classes, availability of online and printed material, problems with technology.

As this course is intended as a small-group tutorial course, of no more than 15 learners in each computer lab, and ideally, the designer will still observe the course in this stage, and look at different items for evaluation. First, a comparison of previous revisions to the last stage in this evaluation to determine their effectiveness in instruction.

Another issue will be to observe any changes to the design implemented on-the-fly by the instructor and the reasons behind such changes (ie. Time constraints, material errors, technology problems, difficult students etc.)

On going

Throughout the design process, as well as the evaluation process, the use of peer reviews will be implemented in the form of informal meetings between the designer's peers and IT department employees. This will serve to provide the designer with different points of view on the design being planned for implementation. Any ideas generated during these sessions will be considered and subsequent revisions will occur based on the validity of these ideas.

Summative

An evaluation into the congruency with the needs outlined in Stage 2 of this document will be multi-faceted.

After instruction has been implemented, a survey of the learners will be conducted to determine their proficiency in iDVD 6, as well as their motivation to use it in the intended distance delivery manner.

At the end of the next academic cycle (semester or quarter) a survey will be conducted regarding looking at what mediums of distance delivery are used at this time, looking for any changes in the way instructors deliver their content compared to before the instruction was implemented. As part of this, an analysis of students participating in the distance education program will be conducted, to determine whether their academic performance has improved based on the introduction of this new medium.

Conclusion

With the instructional design for this course complete, all those involved must look to the future.

Considerations must be made for allowing sufficient time for the creation of required materials, ongoing and post-evaluations of the process and communication about the class. Overall, the design should take no more than six weeks total preparation time.

Scheduling of computer labs and availability of instructors and prospective learners may play a role in attendance, but overall, with the exception of more detailed extended lesson examples, the design is ready for formative and summative evaluations.

With the advent of this instruction, the students at this university will benefit the most, having more access to distance learning mediums and thus improving their overall academic performance.

The learners (faculty) will also benefit from this design by learning a new skill and medium of delivery for their content. Though the learning process maybe time consuming for them to begin with, after their own design process is complete, they will be happy with the results from the standpoint of professional development as well as and educational one.

References

Appendix A

Introduction to DVD Design

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Introduction

1.0 Map DVD Project

2.0 Open iDVD 6

3.0 Create a new project and save it in a chosen folder

Menu work

4.0 Choose a Theme

5.0 Customize a Menu

6.0 Add a Submenu

Adding ContentA

7.0 Add A Movie

8.0 Add A Slideshow

9.0 Customize a Slideshow

Conclusion

10.0 Burn DVD

An online tutorial is available as a study aid after the in-class portion of this course is over.

<http://www.university.edu/technology/classes/dvd/tutorial.xxx>

Appendix B

A sample of online tutorial

