

# **Instructional Technologies and Sign Language Interpreter Training: The Transition from Analog to Digital**

ITEC 894 Creative Work Project

Submitted as a Partial fulfillment of the requirements for

MASTER OF ARTS DEGREE IN EDUCATION

With concentration in Instructional Technologies

By

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## **Certificate of Approval**

I certify that I have supervised the creative work, “Instructional Technologies and Sign Language Interpreter Training: The Transition from Analog to Digital” by Nicole Montagna and that in my opinion it meets the criteria for approving a culminating study submitted in partial fulfillment of requirements for the Master of Arts Degree at San Francisco State University.

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This project is dedicated to my sweetheart Pacts, whose love and encouragement motivates and supports me to pursue my dreams and achieve my goals.

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## **I. ABSTRACT**

Video analysis of one's work is an integral component of sign language interpreter training. Most interpreter training programs (ITPs) have a language lab component to their curriculum for students to record and review their practice translations. Using the Ohlone College Interpreter Preparation Program (IPP) in Fremont, California as a case study, this project explores and documents how an ITP transitions from analog to digital video technologies. Design and implementation of training for both instructors and students is an integral component to the lab redesign.

Like many other interpreter training programs, Ohlone has used analog-based VHS equipment since it first became available on a consumer level. Now that digital video technologies are more prevalent and accessible the Ohlone IPP is interested in exploring these new resources. The Ohlone IPP is transitioning its language lab from analog to digital with Apple's Intel iMac. This consumer-level computer with built-in video camera and range of basic audio and video applications make it a viable choice as the foundation of their new language lab.

The goals of this project include: redesign of lab infrastructure (hardware, software and furniture), and design and implementation of a training to guide the instructors and students on how to use the new equipment and workflow. The training consists of an instructor led workshop and a multimedia tutorial. The instructional content is primarily based on current analog practices adapted for a digital environment, already existing applicable tutorials, and information gleaned from other ITP labs using similar technologies.

I certify that the Abstract is a correct representation of the content of this creative work.

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Chair, Thesis Committee

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Date

## **II. INTRODUCTION**

### **Background**

The Ohlone Interpreter Preparation Program (IPP) is a component of the Deaf Center at Ohlone College in Fremont, CA. The program is two-years, full time and holds most of its courses during the day. Students interested in receiving an Associate's degree can complete the additional coursework required. The program graduates approximately 6 to 8 students per year. Over the past two decades the Ohlone IPP has trained dozens of sign language interpreters working in the Bay Area and elsewhere in California and on the West Coast. Analyzing video and audio samples of practice interpretations is a common assignment amongst sign language interpreter training programs and is at Ohlone. Most interpreter training programs (ITPs) have a language lab component to their curriculum for students to be able to record and review their practice translations. Like many other programs, Ohlone has used analog-based VHS equipment since it first became available on a consumer level. Now that digital video technologies are more prevalent and accessible they are interested in exploring these new resources.

The Ohlone program has been frustrated with its language lab for quite some time. It has reached a point where their lab has become an ad hoc configuration of various pieces of equipment they have collected over the past decade. As the analog equipment started breaking down, instead of repurchasing more of the same the Ohlone IPP wanted to invest in the means for students to produce their work digitally, in order to make the instructional technology component of the interpreter training process more efficient and streamlined. As other programs invest in implementing digital video, the Ohlone IPP strives to keep itself current as well as keep up with student's changing expectations of instructional technologies. Implementing computers in the program not only allows

for creating video and audio assignments digitally but also opens up other opportunities that come with using digital resources such as distance education and online classes, using online audio and video fodder as stimulus materials and developing general computer literacy skills that can be transferred to other areas of students lives and studies (Li, 2007). The Ohlone IPP traditionally has not included technological skill development as part of its coursework. Efforts to use the equipment properly and solve problems are approached by trial and error, which is often also cumbersome and time consuming. The program is somewhat self-contained and has technical needs that differ from other departments on campus due to its regular and frequent use of video viewing and recording.

With the analog lab set-up students would use various pieces of equipment, depending on the task. VHS cameras were used for video work and audiocassette recorders for spoken translations. For years instructors have carried around bags of tapes to review student assignments. In comparison to using digital tools, analog tapes became cumbersome to transport and review.

As a graduate of the Ohlone IPP, a practicing sign language interpreter and a student of instructional technology I was inspired to propose a new lab model for the program. The initial proposal focused on hardware and software, using Apple's Intel iMac. This consumer-level computer with built-in video camera and range of basic audio and video applications make it a viable choice as the foundation of their new language lab. The proposal was well received and the equipment was purchased.

Since the initial proposal the project has evolved to include:

1. Design and implementation of training for both instructors and students
  - a. Instructor-led workshops
  - b. Flash-based self-paced tutorial
2. Classroom infrastructure
  - a. Furniture
  - b. Wiring for networking
3. Reorganization and digitization of stimulus materials for interpreting practice
  - a. Videos of Deaf people signing
  - b. Audio recordings of spoken lectures and presentations
  - c. Creating an inventory of stimulus materials
4. Visiting 6 other sign language interpreter training programs around California
  - a. Interviews instructors and students about using their lab equipment
  - b. Surveying lab resources and available training options

The primary focus of this project is the design and implementation of the training on how to use the new lab equipment.

Several other programs in California have converted to digital labs, and of those, a few are using iMacs in particular for their hardware, such as Cal State Northridge's ASL/ITP lab and the ITP at American River College in Sacramento. These programs offer varying degrees of technology training, from peer support to ad hoc training sessions and hand outs with screen captures and written instructions. Of the schools visited dedicated technology training was not included as part of their curriculum. Faculty receive varying levels of training and support from their institutions, from workshops where instructors were paid for their time, to having to arrange training on their own time without compensation. It is a goal of this project to have the training resources and instruction created from this project become incorporated into the Ohlone IPP curriculum and serve as a model for other ITPs.



## **Purpose**

While one of the project goals was to redesign the lab infrastructure, the main goal is to maximize the new digital resources through training and support on how to best utilize them. By providing an instructor led training for students and instructors at the beginning of the program they are better equipped to use the technologies available to them. The design goals are to create something practical, familiar and convenient to ease the transition to creating digital audio and video for interpreting assignments. Trouble shooting and working with other support resources is included in the workshop as well as some basic history and information on computers, digital video and the internet to provide further context. The Flash based tutorial describes and guides the learner through the instructional tasks, all of which involve using iMovie to varying extents. Orientation to using the tutorial is incorporated into the workshop.

Video recordings allow for self-reflection of ones work and the ability to share it with others for constructive feedback. By being able to efficiently and effectively create video samples students can increase the quality and quantity of their assignments. While the scope of this project includes audio technologies, for recording ASL to spoken English interpretations, what is of particular focus here is the video analysis component. It is this aspect of the recording process that is unique to sign language interpreter training. There exists a myriad of technologies designed for spoken language learning and interpretation practice (e.g. Sony Virtuoso, Sanako), but fewer such systems exist for signed language interpreting programs and ad hoc solutions are often employed, by combining a video camera with spoken language technologies. There are several companies that have created visual record and analysis programs for athletic, public speaking and linguistic research and analysis (e.g. StudioCode, CommuniCoach) that are also marketed to ITPs and have been adopted by some. Due to price, complexity of

the programs, the steepness of the learning curve or the irrelevance of some features these potential solutions were not feasible for the Ohlone IPP to adopt .

Documenting this transitional process is part of larger story- the historical usage of video analysis within sign language interpreter training. The first programs in late 1960's coincided with legislation passed ensuring Deaf people communication access in educational and vocational settings (Gustina, 2007). According to accounts of graduates of these early ITPs filming their work was a rare occasion that usually happened at the culmination of the training. As video technologies have evolved so has its usage in ITPs and at Ohlone students videotape themselves quite frequently. An eventual goal is to expand upon this work to the broader context of the historical perspectives and current trends of audio and video technologies and interpreter training programs.

While the Ohlone IPP classes tend to be quite small, the impact on the local Deaf community is quite large. The Ohlone program has produced a sizeable percentage of the certified working interpreters in the Bay Area over the past 25 years. These interpreters serve hundreds of Deaf consumers providing communication access in a wide variety of settings and contexts. This case study documenting the Ohlone IPP's lab transition can serve as an example and guide for other programs, striving towards similar processes and goals.

## **Significance**

This project has had a profound impact on the Ohlone IPP. Not only has the workflow and process changed for how they do their video recordings, but it also has ramifications for other aspects of their program. Using digital hardware calls for digital stimulus materials. As a result of the equipment upgrade the program has

purchased the DVD versions of many of their VHS tapes and started a process for creating a database inventory of their materials. Using computers also allows for Ohlone to develop its potential and expand its scope. One of Ohlone's challenges of recruiting students is that it is a full-time, daytime program. Many students are interested in ITPs with flexible options and schedules so they can work at the same time. Distance education courses can provide access to education for interpreters in remote areas and offer hybrid options to allow students and instructors to travel to campus less often. With a classroom network and materials stored on a server, students have the potential to connect to campus remotely to retrieve and submit assignments. This is not novel for students in terms of handing in written assignments, but is new in regards to submitting their audio and video recordings. Other possibilities include using online audio and video content as stimulus materials and learning objects.

The ASL department at Ohlone offers a myriad of courses and has many students enrolled in their language classes. There is also a video lab component to these courses as well. Students are often viewing tapes for comprehension and videotaping themselves. In this context they are not doing much translation work. The Ohlone ASL lab would also like to upgrade to digital tools and is looking to the IPP as a model and example.

According to the database of the Registry of Interpreters for the Deaf (RID), there are 168 ITPs in the United States. California has 13 programs across the state, accounting for 7.5% of the U.S. total. For this project, 7 schools were visited, instructors, students and lab environments surveyed. This project has also served as a centralized hub, connecting these schools to each other and discovering commonalities while sharing challenges and successes.

## Scope

Analyses and assessments of the learners, context, and instructional objects are in reference to the training process. The theoretical framework and usability review are also in reference to the training workshop and tutorials. Evaluating the usability of the lab infrastructure itself and theoretical perspectives on establishing learning spaces will be addressed in a separate project. There are also other applications that the program will purchase to facilitate classes or the video production such as Apple Remote Desktop or QuickTime Pro. Development of a training module to support learning these programs will be pursued at a later time.

After the initial adjustment period, and the students and instructors develop competency with the equipment and workflow, the Ohlone program will explore distance education possibilities to suit their needs and collective learning style. While this project creates the opportunity to explore a widely available consumer technology within this educational context, the scope of the project and the training is limited to describing the video analysis process as it relates to their course work. This project does not explore or advise on the use of other instructional technologies such as smart boards and learning management systems. This also includes other programs or applications used to facilitate class or create assignments.

### **III. FRONT-END ANALYSIS**

The lab redesign includes both the physical space of the classroom and specific equipment. The analyses described in this section focuses on the front-end analysis for the training process and its relevance to the ILT workshop and the media tutorial.

#### **Literature Review**

Three specific theoretical concepts served as the framework for the instructional design process: Cognitive Load Theory (CLT), Situated Cognition and the Zone of Proximal Development (ZPD).

#### ***Cognitive Load Theory***

Cognitive Load Theory is a social cognitive model of sequential skill acquisition where observation leading to independent self-regulation is the performance goal. (Wouters, et al., 2007). Using a video production program involves both behavioral or motor skills, the physical aspects of how to use a given program, which options to click on, and the process to follow to create the video, as well as cognitive skills in the decision making and reflective aspects of production.

Motor skill development via modeling has been long researched and supported as a successful instructional method. The use of “dynamic visualizations” through graphic design elements and special effects can demonstrate the metacognitive tasks and further understanding of the desired learning outcome. “What” and “why” are able to be communicated to the learner at the same time instead of just the “what.” From an information processing perspective, access to a model that can be repeatedly referenced frees us of cognitive resources and

lightens our cognitive load (Wouters, et al., 2007).

According to CLT, instructional designers should take care of three kinds of cognitive load that the learner will experience when performing a task. Intrinsic load related to the amount of interactive elements in the learning material that have to be processed; extraneous load, related to the cognitive activities that do not contribute to the learning process; and germane load, related to the cognitive activities that strengthen the learning process. The general goal for instructional design is to reduce extraneous load to a minimum, and maximize germane load to a level that remains within working memory limits. The available capacity for any germane process depends on the intrinsic difficulty of the learning materials, which is mainly beyond the control of the instructional designer, as it is dependent on the learner's prior knowledge (Wouters, et. al, p. 330)

In order to reduce the cognitive load of the learners, the multi-media workflow will be designed to reflect the IPP workflow. In this case the extraneous load refers to the cognitive effort spent on utilizing the training while the germane load is the interpreting task and information students are trying to capture and analyze. Learners will be able to see their tasks reflected in the training, rather than trying to glean pertinent elements from pre-existing tutorials that may be applicable to their tasks -- while trying to maintain focus on the interpreting task as well. The goal is to minimize time spent on training and maximize time and energy on classroom assignments and the interpreting process itself.

### ***Situated Cognition***

The theory of situated cognition proposes that meaningful learning will only take place if it is embedded in the social and physical context within which it will be used (Herrington, et al., 1995) Also referred to as “anchored instruction,” situated cognition allows the learners to receive and practice instruction in a context similar to the one in which the learners will perform. “Two of the tenets of situation cognition are the instruction provides an authentic context that reflects the way the knowledge will be used in real life, and access to expert performances

and modeling of processes.” (Herrington, et al., p. 3) These two tenets are of particular relevance in this project: instruction will be provided in the given classroom context using the computers the students and instructors use regularly and the expert performance and modeling of processes will be detailed both in the workshop and multimedia tutorial. The tutorial is designed to be used alongside the programs so the instructional content will be available in the performance context of using the iMovie program.

### ***Zone of Proximal Development***

The learning principle of the Zone of Proximal Development (ZPD) was coined by Lev Vygotsky. It refers to the distance between current capabilities and potential capabilities with guidance and instruction. Co-construction of knowledge is also a component of the ZPD since a variance of perspectives and skill sets can further the potential of individual learners (Vrasidas, 2000). The workshop designed feature activities that foster constructivist participatory learning. The tutorial allows the learner to access knowledge suitable for their competency and stage in the production process, without having to watch it in its entirety. One of the pivotal concepts of the ZPD is the scaffolding. “Specifically, the term should be limited to describing the cognitive support given to a novice learner to reduce the cognitive load of the task. To scaffold a task is to take over the part of a task that is cognitively beyond the learner, so that he is free to focus on what he can do independently.” (Verity, p. 4) The dynamic screen capture videos provide scaffolding for the learner in that the tasks demonstrated are specific to their workflow and required assignments. While there exist online tutorial on how to use iMovie, the tutorials designed from this project provide cognitive scaffolding in that they reflect the student’s workflow and the same process they are experiencing.

## **Needs Assessment**

There is an overall need for sign language interpreters, and as a result, improving recruitment and training efforts for prospective interpreters have become important concerns for the profession. Improving training and retention efforts impacts those who rely on interpreting services, such as members of the Deaf community, and the entities with whom they interact. Some reports from instructors and students have indicated that analog video tools are limiting and have expressed a desire to use digital. Some instructors while having an interest in using digital video, were not able to use the resources efficiently and resorted back to the familiarity of analog. The dilemma exists of wanting to use digital resources but not having the technical support and training to do so.

A needs analysis was done primarily by interview with the director of the Ohlone IPP. The sample also included 6 other ITPs in California. Each school was visited and a descriptive and ethnographic approach with open-ended survey questions was employed to gather information about their lab equipment, subsequent training, and implications for their curricula. Several students were also interviewed and responded to written and online surveys. (See Appendix C)

Needs assessed includes both hardware specifications and the functional needs of the users. Hardware needs included:

1. Minimum amount of computer/digital access for program participation
2. Storage device to be used for student coursework
3. Compression rates for student videos to efficient upload
4. Back up process and activities for when server might be down
5. Formats for stimulus materials



Functional usability needs:

1. Use of stock applications of Intel iMac for “out-of-the-box” ITP technology
2. Create video and audio recordings with iMovie.
3. Understanding how to transfer of knowledge from analog to digital video production.
4. Transfer familiarity with digital video consumption with production.
5. Understand video production process to transfer knowledge to other programs.
6. Job aids to guide successful independent usage of program
7. Additional programs for use by instructors to conduct class (e.g. Apple Remote Desktop)

The approach to address these needs is with an instructor led-training and implementation of a multi-media tutorial that can be used by learners repeatedly and independently. When the Ohlone IPP computers were first set-up the initial training consisted of several ad hoc sessions lasting about an hour to an hour and a half addressing the immediate needs of the learners. Several one-on-one training sessions were conducted with faculty. Job aids in the form of “cheat sheets” were comprised of notes and screen captures on how to use the Mac operating system and the iMovie application. Instructor-led training sessions were requested by the director and students of the Ohlone IPP as well as several other ITPs. For many learners in this context, this is their first exposure to creating digital video and ILT was preferred as the primary means of training. The tutorial is designed to support and refresh their learning as they work independently throughout the semester.

For additional reinforcement and orientation to the Mac OS and iLife suite of stock applications, it has been suggested that students and instructors seek out resources from Apple retail stores. The stores offer free workshops on a variety of Mac related software and hardware topics. They also offer a service called One-to-One for \$99 which provides a year’s worth of weekly one –hour personalized tutoring sessions. These resources as well as online tutorials through the Apple.com site and other training sites have also been suggested.

## **Content /Task Analysis**

The instructional content of the workshop and tutorial will be the same, reviewing and demonstrating the iMovie functions and features. The workshop will also include pre-instructional informational session as well as post-instruction debrief and discussion.

The pre-instructional workshop consists of activities designed to construct meanings of common terms such as technology, digital, cyberspace and web 2.0 to frame the instruction in a history context of the domain of computing and digital media production. As extra linguistic knowledge is an important area of skill development for interpreters, efforts are made to increase our general knowledge base on a variety of topics. Since it's easier to interpret information if it is already familiar, this pre-instructional activity not only serves as a motivator to create buy-in and context for the pending instruction, but also contributing to the learner's extra linguistic knowledge of this particular domain. Interpreter training programs have certain tasks in common. The context might vary but the processes are similar, interpreting a text from a source language into a target language. Given the complexity of video production and the various permutations available to achieve the same output the focus of this project was on using one program that could satisfy the greatest number of ITP tasks. iMovie satisfies that requirement for audio and video record and creation, with the use of iTunes for managing audio files and QuickTime Player for viewing video files.

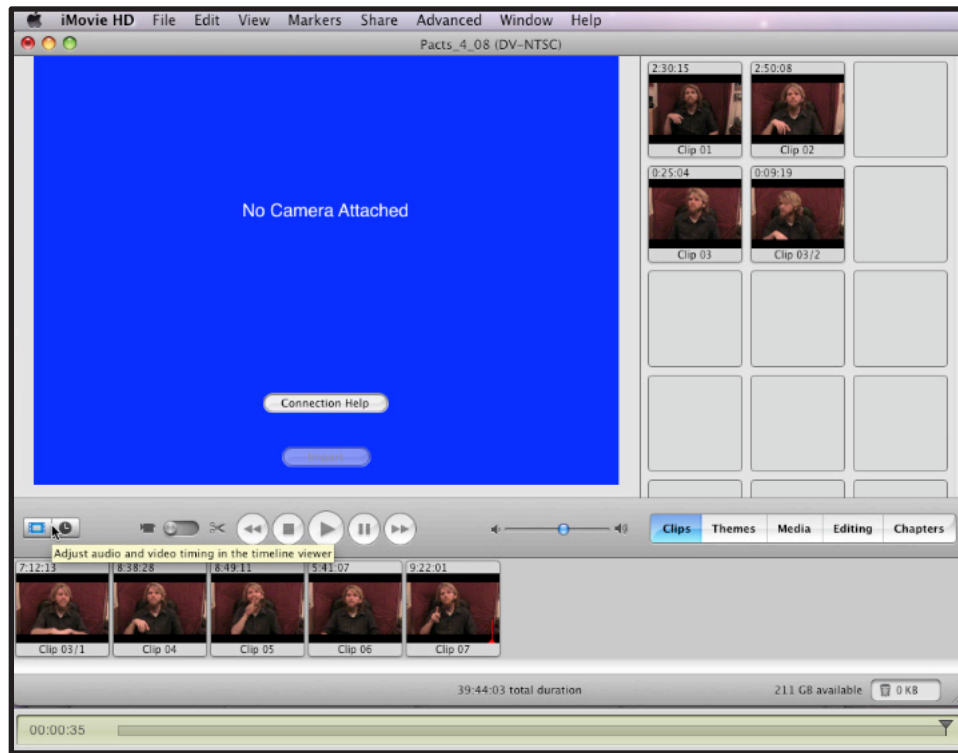
The ITP tasks are organized as:

1. Launch program
2. Record Sign to Sign (STS)
3. Record Sign-to-Voice (STV)
4. Record Voice-to-Sign (VTS)
5. Create video

If the video file is not included, students can still use iMovie for audio translation while recording a video of themselves (for feedback on body language, production, presentation)

By importing a QT file into iMovie and recording voice translation in this program, instructors can view stimulus videos while listening to the students' voiced interpretation. If a video file is not included, students can still use iMovie for audio translation while recording a video of themselves (for feedback on body language, production, presentation)

By the time the lab equipment was purchased and set up, Apple had changed the style of the iMac and version of their operating system as well as introduced a new version of the iApps, including a complete redesign of the iMovie interface. At that point the tutorial design evolved to be scalable so that other programs could be demonstrating the same series of processes.



**iMovie '06 interface**



**iMovie '08 interface**

## **Learner Analysis**

The learners in this context are both the instructors and the students of the Ohlone IPP, and by extension those affiliated with other interpreter training programs using similar technologies. The goal of the training is to allow them to spend as little time as possible dealing with technology issues while participating in class and completing their work. Information was gathered about them through survey and focus group discussion. The surveys were distributed on paper in person and also available through Survey Monkey online ([http://www.surveymonkey.com/s.aspx?sm=EU\\_2bemhTmYD71fgJeFivKdw\\_3d\\_3d](http://www.surveymonkey.com/s.aspx?sm=EU_2bemhTmYD71fgJeFivKdw_3d_3d))

These learners have a general computer competency as they use text messages and email, and the internet to communicate, shop and socialize, and word processing programs for written assignments. Most of their experience with digital video and audio is as consumers. They are also already familiar with audio/video technologies in general, as they have experience with analog equipment. Some have even branched out into using their own digital media resources to create movie files and DVDs of their work. The learners who are themselves instructors in the program also have experience with recording on VHS and some of them even have some video production experience, although in most of those situations they were the subject matter experts, content providers and on-screen talent more so than they were actually filming and editing. Overall these learners tend to approach problem solving and tech support by asking their colleagues and classmates.

Educational research has shown that more and more students expect the use of technology in the classroom and that learning with technology can improve learning outcomes (Cramer, 2007), (Li, 2007). These particular learners while perhaps not experienced with emerging technologies are aware of them and their capabilities,

expressing interest in options such as remotely connecting to the classroom server to retrieve and submit assignment-related files. They are excited to use the new machines and are motivated to use them effectively, having increased expectations, as well as the reward of having their frustrations alleviated and developing their technical potential.

One of the strengths of the interpreting profession is the sense of community. By attending an ITP, these prospective interpreters become initiated into the interpreting community as well. This takes place by becoming involved in the professional organization, attending related conferences, and mentoring with credentialed interpreters and professional Deaf people. As an extension of the collectivist value and learning style of the Deaf community, in regards to how information is shared, interpreters have evolved into a community of practice. These values lend themselves well to distanced education environments, one of the eventual goals after implementing a new lab. Being able to transmit authentic learning activities to remote locations expands the reaches of training opportunities for interpreter skill development.

## **Performance Analysis**

Currently, for sign-to-voice practice, students watch VHS tapes and record their translations onto audiocassettes. For voice-to-sign assignments students work with prerecorded lectures on audiocassettes and record themselves signing their interpretations with VHS cameras. Instructors then collect the students' tapes to review on analog equipment and provide feedback on their work. Once the lab is designed, the students will create both video and audio files with the iMac, upload to the designated folders on the class server, and then save their files to their own hard drives for back up,. The instructors will then retrieve these files from the server for review and to

provide feedback, this can be done from computers in the lab or from a remote location. The files will be saved as .mp3 audio files or QuickTime .mov files so they can be accessed on PC or Mac computers. The training will address this performance need to develop competency with the digital equipment and workflow. Once learning or content management systems are introduced, the technology training will be modified to reflect these new components.

## **Instructional Goals and Objectives**

The overarching instructional goal is to foster media literacy. In the rapidly changing sphere of technology it is more beneficial to focus on processes not programs, preparing people for adaptability (Cross, 2008) The ILT will include additional information about technology, brief histories on computing, the internet and digital video, as well as trouble shooting basics and developing good computer habits.

The ILT is a one-time session that is designed to be 4 to 6 hours. The Flash-based tutorial is self-paced and can be viewed repeatedly. The length of time to complete the tutorial depends to what extent the learner is creating their project while using it. The goal of the tutorial is to serve as a refresher for the training and to serve as a job aid to support the learners in the performance context.

### Performance goals:

- General understanding and awareness of the evolution of computing technologies
- Migration to digital audio video resources and processes
- Spend less time on technological processes
- Articulate problems to tech support
- Employ basic trouble shooting strategies

## **Media Selection**

The instructor-led training includes an orientation to the multimedia tutorial. The director of the Ohlone IPP wanted an extensive training series to initiate the instructors and students to the new lab. Given the investment in the equipment and the lengthy process of implementing the new lab, there is a deep appreciation for training and technical skill development.

Flash was chosen as the best medium because it is fast loading and versatile to use. Many people are already accustomed to this kind of learning object. The player is free and easily downloadable. Flash combines text and video elements well and allows for flexible non-linear navigation and self-paced modules. By creating templates and using button navigation elements can be changed easily and adapted as programs change and evolve.

Screen Flow was an integral program used in creating the tutorial. This program allows for dynamic screen capture of the Mac OS interface and has editing functionality similar to iMovie. The screen capture video and text were combined with navigation in Flash to create files that can be viewed online or run locally.



## IV. DESIGN AND DEVELOPMENT

For this project there are three aspects of design and development:

1. Lab infrastructure
2. Workshop
3. Tutorial

### Lab Infrastructure

Lab components	Details
1. Hardware	<ul style="list-style-type: none"> <li>• Intel iMacs (purchased spring 2007)</li> <li>• Storage needs</li> <li>• Server set up</li> </ul>
2. Software	<ul style="list-style-type: none"> <li>• iLife '06</li> <li>• Apple Remote Desktop</li> <li>• iLife '08</li> <li>• Quick Time Pro</li> </ul>
3. Networking	<ul style="list-style-type: none"> <li>• Cabling</li> <li>• IT support</li> <li>• Remote connection</li> <li>• Server firewall and security</li> </ul>
4. Workflow	<ul style="list-style-type: none"> <li>• Retrieve stimulus materials</li> <li>• Record translation</li> <li>• Save recording</li> <li>• Review translation</li> <li>• Share to external drive and network/server</li> </ul>
5. Stimulus Materials	<ul style="list-style-type: none"> <li>• Convert current VHS when possible</li> <li>• Replace previous VHS with DVD versions</li> <li>• New DVD media</li> <li>• Online content</li> <li>• Exploring copyright/community issues</li> </ul>
6. Furniture	<ul style="list-style-type: none"> <li>• Carrels</li> <li>• Chairs</li> <li>• Keyboard shelves</li> <li>• Lighting</li> <li>• Backdrops</li> </ul>
7. Training	<ul style="list-style-type: none"> <li>• Instructor Led Training (ILT)</li> <li>• Lessons organized by objectives</li> <li>• Flash based multi-media tutorial</li> </ul>

## **Instructional Strategies and Principles**

Design principles focusing on navigation, chunking, sequencing and pacing were emphasized to varying extents in both the tutorial and the workshop. Information in the workshop is chunked according to informational or instructional, with the instructional element sandwiched between the two informational sessions. The pace of the workshop can be determined by the participants, in regards to how much discussion time they would like to have. The extent discussion or elaboration during the instructional segment is dependent on the average skill level of the participants and can be flexible according to their needs and interests.

Collaborate learning is particularly emphasized in the workshop by fostering dialogue and discussion. This provides an opportunity to maximize the face-to-face time as well as deal with some of the change management issues that comes with learning and adopting new technologies. In addition to discussion, an interactive dialogic process can be enabled through mobile technologies. Learners can send text messages and emails to the instructor throughout the workshop. The content of these messages will then be collated, formatted and posted on the instructor's website for later retrieval by workshop participants.

### **Control and ease of navigation**

- One button leads to new screen and starts video
- Videos have their own navigation for repeated play

### **Chunking**

- Information chunked according to task
- Workshop information and activities chunked according to pre-instructional/informational, instruction and post-instruction/informational

## **Pacing**

- Tutorial modules are self-paced
- Workshop pace is flexible to adjust to learners' pace
- Interaction with instructor via text and email so allows for self-paced questioning and commenting

## **Sequencing**

- Content listed in order of production process but navigation is non-linear
- Sequence of production steps are outlined in the text that accompanies each video

## **Development and Production Process**

### 1. Sections:

The content for this course is divided into a five sections with corresponding buttons. Each button is a step in the production process.

### 2. Course Challenge:

At the culmination of the course learners will create their own media independently, relying on the tutorial and related resources for support.

### 3. Course Tools:

During the course the learners will have access to the hardware and software needed to complete activities, and access to the internet to connect to support resources.

### 4. Course Completion:

Learners know that they have completed the course when they are able to perform all of the production steps successfully.

## **Content Outline**

The contextual information presented in the first part of the workshop offer background knowledge for interpreters to develop familiarity with this content. This will prove particularly helpful if learners find themselves

interpreting similar content at some point in the future. Providing context helps to anchor the subject matter and increase retention. (Oliver 1999) Drawing on the knowledge of the group we are able to establish a baseline of understanding, as well as provide a sense of accomplishment for the learners. As many of them have self-identified as being non-technical people, through discussion and collaboration the learners can realize that they know more than they previously thought.

## ***Workshop Outline***

### **Values guiding the training:**

- Develop common language
- Process more important than programs since programs will change
- Recognize technological capabilities and limitations
- How to get the support you need

### **Part 1: Technology 101**

What do you visualize when we use the term “technology”?

#### **Define these terms:**

- Technology
- State-of-the-art
- Digital
- Electronic

Activity: pick a term, search for meaning and come up with a brief definition and sign translation

#### **Abbreviated history of computing:**

1940's: transistors

1950's: programming languages, integrated circuits

1960's: ARPANET, input devices

1970's: microprocessing, floppy disks, networking, consumer computers

1976: the Steves create the Apple 1

1977: plastic case and ability to display color graphics

1980's: Apple creates GUI, Apple ][e, IBM home PC, MS Windows

1990's: Internet upswing, Y2K concerns

2000: dot.com, President Clinton does first Presidential webcast

2001: iPod, file sharing sites

2003: Mozilla, MySpace, Second Life

2004: Gmail, Facebook

2005: YouTube

2006: increase of video online

2007: web 2.0, iPhone

2008: social networking, mobile computing, internet cloud

### **The online world:**

Major focus of modern computing is connection to global network

### **Define these terms:**

- Internet
- intranet
- cyberspace
- metaverse
- virtual reality
- World Wide Web (a.k.a. the web)
- net neutrality
- web 2.0, 3.0

Activity: pick a term, search for meaning and come up with brief definition and sign translation

### **ITP usage of instructional technology:**

- Discussion of experiences
- Preliminary concerns and questions
- Segue to instructional component

## **Part 2: Record target language interpretation from source language stimulus**

- Description of work-flow
- Selection of stimulus material
- Record translation
- Create video
- Submit assignment

### **Introduction to the Mac OS:**

- Description of interface
- Basic shortcuts
- How to use iMovie
- Description of Interface
- Review of process together
- Review of tutorial
- Activity: make videos using tutorial as a guide
- Review videos
- Problems and questions

### **Overall good computing habits:**

- Taking breaks
- File naming and organization
- Back-up

### **Tech support:**

- What kind of problems do you tend to have?
- How do you try and solve them?
- What are your tech support resources?
- Tried and true first fix attempt, close out and restart program
- Sometimes that might involve "Force Quit"
- Close out all applications and restart computer
- Check peripherals
- When you call tech support they will ask if you have done these things.
- You will appear organized and better able to receive their assistance if you tell them you have already done so.

- Articulate your problems clearly
- Try this formula " I am trying to do X. When I tried Y (action), Z happens (reaction or response)."
- Searching
- Forums
- Apple One to One service
- Private tutoring
- Classes and workshops

### **Part 3: Where do we go from here?**

- Review sample recordings
- Debrief instructional process and experience
- Emerging technologies
- The social web
- New media
- Evolution of technology as ongoing process
- Needs assessment important part of problem solving
- Instructional needs
- Learner profiles
- Lab environments

## ***Multi-Media Tutorial***

The Flash-based tutorial is designed to support the ILT. Templates were designed to allow for the video and text elements to be updated or added, while maintaining navigation functionality. The instruction does not account for other variables for viewing source input such as DVDs or CDs. This information will be covered in the ILT. Tutorials are created with the assumption that the source video files are QuickTime .mov and source audio are .mp3 files managed in iTunes.

### **Video applications**

(For the purposes of this project we will only create the iMovie '06 option)

1. iMovie '06
2. iMovie '08
3. QuickTime Pro

Design	<ul style="list-style-type: none"> <li>• Color           <ul style="list-style-type: none"> <li>o Reflecting the aesthetic of the application</li> </ul> </li> <li>• Fonts</li> <li>• Shape</li> </ul>
Navigation	<ul style="list-style-type: none"> <li>• Tabs: to show the program</li> <li>• Highlight: to show the task</li> <li>• Buttons: to show the step in the process</li> </ul>
Video elements	<ul style="list-style-type: none"> <li>• Each step in the process has a corresponding video</li> <li>• Segments are approximately 30 to 60 seconds long</li> <li>• ScreenFlow used to create dynamic screen captures of the program in action</li> <li>• Size of window is 800x600 to increase readability of icons and on screen text</li> </ul>
Text	<ul style="list-style-type: none"> <li>• Minimal text to accompany video</li> <li>• Synopsis of process</li> <li>• User can skim through text without viewing video</li> </ul>



## *iMovie '06 Buttons and Text*

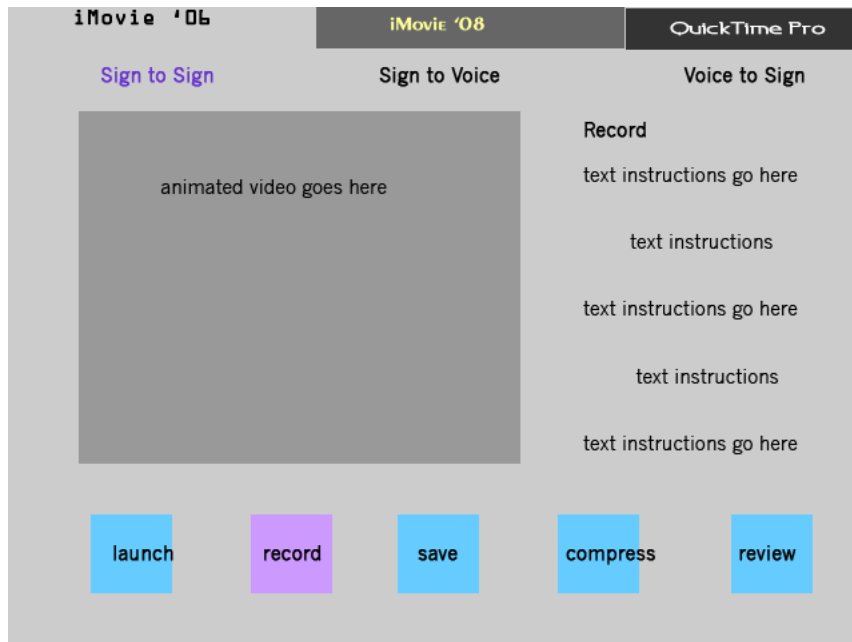
<b>Button Function</b>	<b>Corresponding text details</b>
Launch Program	<ul style="list-style-type: none"> <li>• Open Finder</li> <li>• In applications folder choose iMovie</li> <li>-OR-</li> <li>• Click on icon in dock</li> <li>• Program automatically opens most recent project</li> <li>• Create new project</li> </ul>
Sign to Sign (STS)	<ul style="list-style-type: none"> <li>• Open video file for source video</li> <li>• Change mode to video record</li> <li>• Record with iSight button will appear</li> <li>• Start playing video file</li> <li>• Select record to start recording</li> <li>• Select record again to stop</li> </ul>
Sign to Voice (STV)	<ul style="list-style-type: none"> <li>• Drag and drop file from finder onto the canvas</li> <li>-OR-</li> <li>• File&gt;Import</li> <li>• Select media (Note: importing time depends on size of video file)</li> <li>• Drag and drop clip into timeline</li> <li>• Place scrubber bar at starting point</li> <li>• Select media pane for microphone</li> <li>• Mic on button is red outside</li> <li>• Audio level indicates recording</li> <li>• Automatically changes to timeline viewer</li> <li>• Voice will record over video</li> <li>• Click on microphone to stop recording</li> <li>• Mic off button is red inside</li> </ul>

<b>Button Function</b>	<b>Corresponding text details</b>
Voice to Sign (VTS)	<ul style="list-style-type: none"> <li>• This workflow designed for use with headphones and iTunes</li> <li>• Select audio output with headphones</li> <li>• Open iTunes</li> <li>• Select audio track</li> <li>• In iMovie select camera mode</li> <li>• Start recording video</li> <li>• Start playing iTunes track</li> <li>• Record signed interpretation</li> <li>• Stop audio playback</li> <li>• Stop video recording</li> <li>• Media pane select same iTunes track</li> <li>• Drag and drop into timeline</li> <li>• Place video into time line</li> <li>• Creating video will combine signed interpretation with source audio</li> </ul>
Create video	<ul style="list-style-type: none"> <li>• Created clips will be on right side in clip viewer</li> <li>• Create sequence by dragging and dropping clips into the timeline to create video</li> <li>• Save project (Note: saving the project file, not the movie)</li> <li>• File&gt; export</li> <li>-OR-</li> <li>• Share&gt; QuickTime</li> <li>• Either option will allow you to select compression options</li> <li>• Choose Web (for smaller file size while retaining quality)</li> <li>• Choose name of video and where to save it</li> <li>• The length of the video will determine how long it will take to compress.</li> </ul>

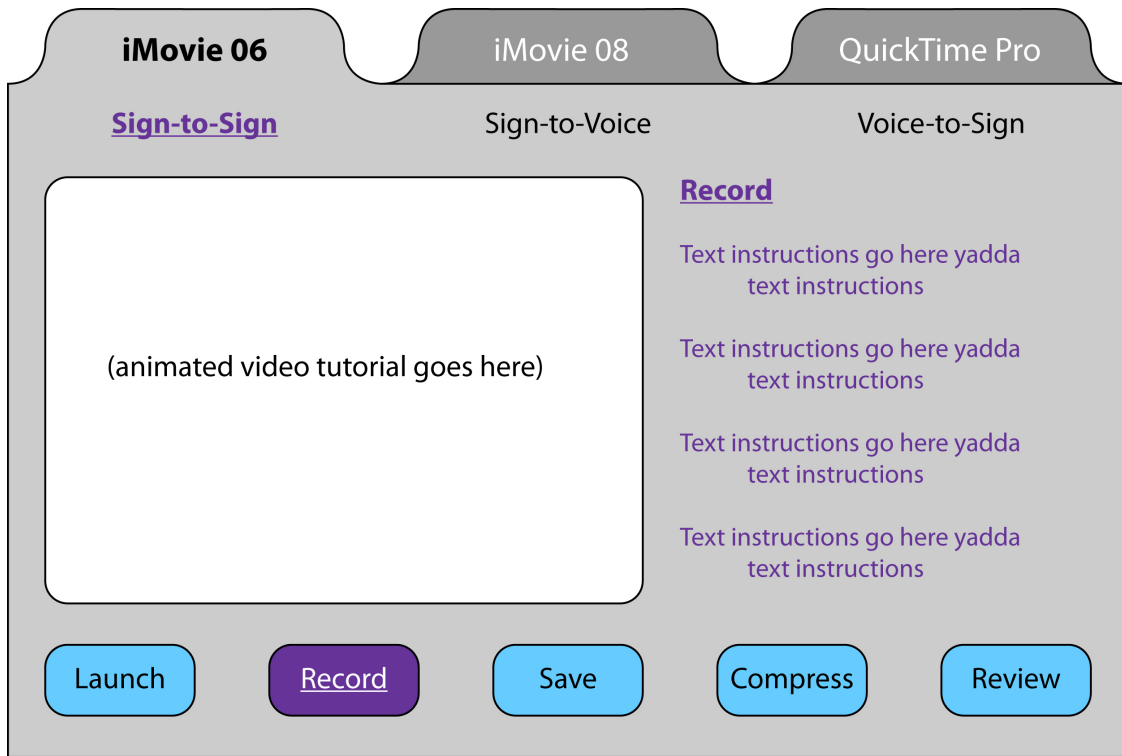
## Tutorial Prototypes



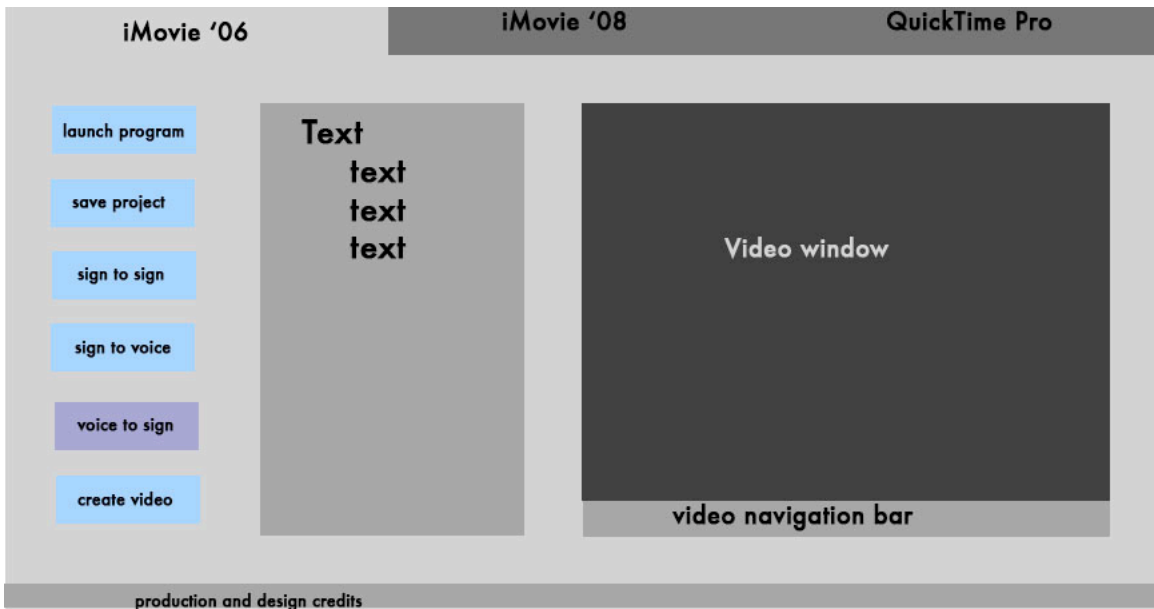
Prototype v.1 (for detailed view of each section, see Appendix H)



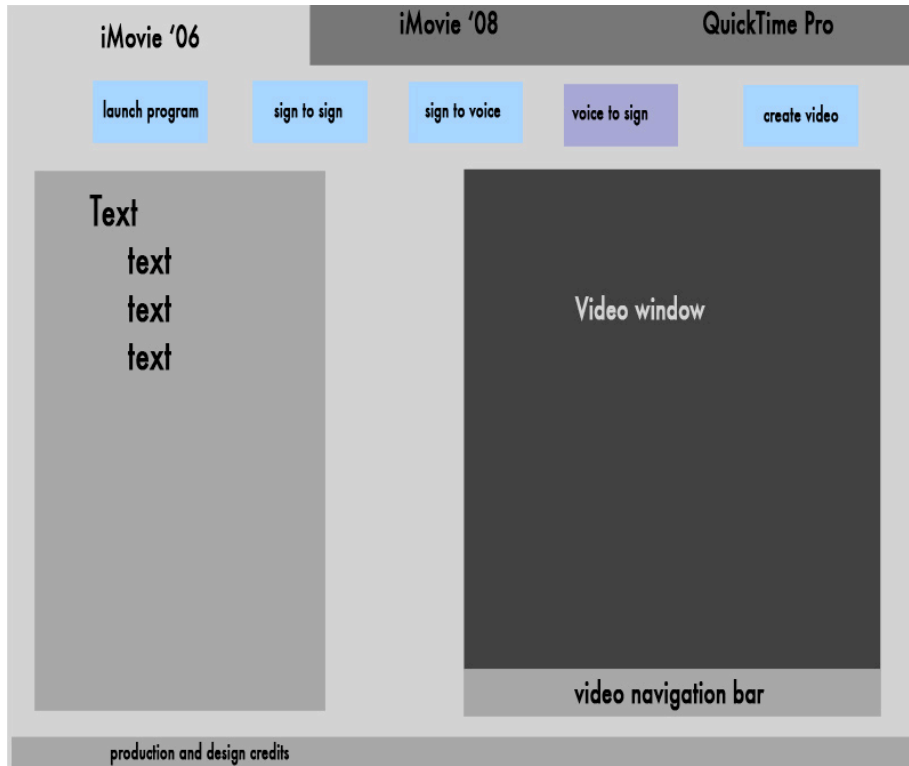
Prototype v.2



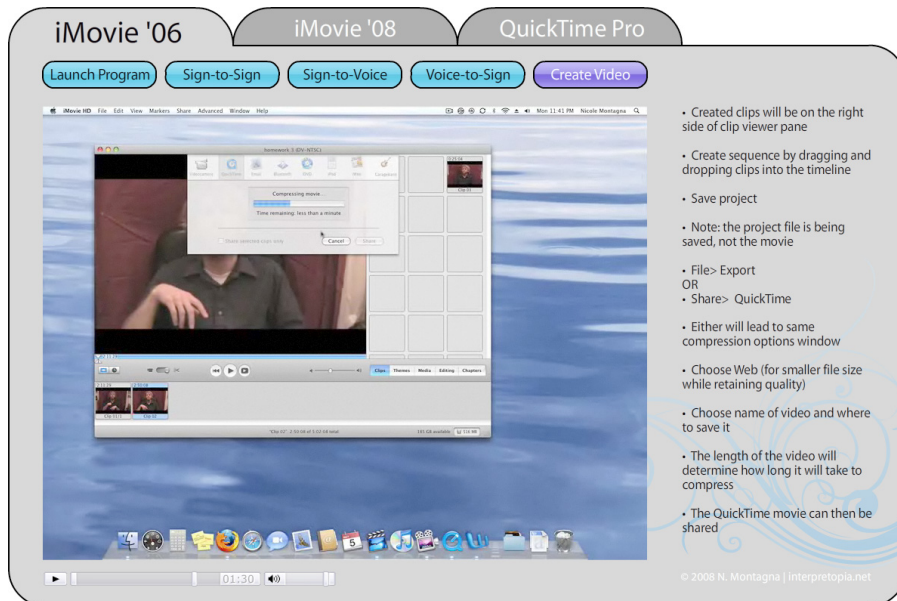
Prototype v.3



Prototype v.4



**Prototype v.5**



**Prototype v.6**

## **V. USABILITY REVIEW**

### **Expert Review**

Those who reviewed the workshops were subject matter experts in sign language interpreting and an expert in instructional design. Those who reviewed the tutorial were content experts in interpreter training instruction, instructional design as well as graphical interface design. Feedback was given anecdotally in the form of short paragraphs and comments.

For the workshop it was agreed that having pre-instructional activity providing both contextual and extralinguistic knowledge would be effective. This was expected to increase buy-in and motivation by the participants. The subject matter expert, who is also one of the sponsors, wants to have more content geared specifically towards instructors. This was encouraged since students are likely to seek out support from their instructors. The instructors of the program would like to have more troubleshooting knowledge and resources at their disposal. There are also supplemental processes and programs that the instructors will be using that need to be included in the content. This includes instruction on how to interact with the server, networking and IT concerns and how to use Apple Remote Desktop, which is a cornerstone of managing the lab environment. Additional troubleshooting resources were added to the workshop content and an ILT will be designed specifically for instructors.

For the summative evaluation, several learners were interested in other video production programs and wanted to have training and a tutorial that would incorporate these varying options. Since Apple has a variety of basic video production programs, from iMovie '06 to the updated version of iMovie '08 and the for-purchase QuickTime Pro, it is likely that students and/or instructors would be interesting in exploring these options. This

project began with iMovie '06 and the Ohlone IPP is using this program as well, so the tutorial begins with this application. With the production process organized into five components, these serve as reference points for the other applications as well. The tutorials for iMovie '08 and QuickTime Pro will be chunked accordingly with video and text that reflects the particular features and functions of the respective programs, hence the interface design of tabbed windows set-up as templates.

While the videos are somewhat pixelated, especially when there is call-out on a specific section, they were reported to still be readable and helpful. Future iterations of the videos will strive to be clearer as compression settings are explored and altered. Some of the users also inquired about having audio. An audio track reading the text aloud will be included with a “click here for audio” toggle button.

## **One to One Review**

Several learners were consulted on the first renditions of the prototypes. These learners included two instructors and one student of the Ohlone IPP. Several comments were similar amongst users. At first the video viewer window was going to be smaller than its current size of 800x600. In order to be able to read the screen clearly the window size needed to be bigger than anticipated. It was first thought that users would prefer something less obtrusive. In actuality, if the video window in the tutorial is too small then the text is difficult to read.

During the formative evaluation for the tutorial, it was commented that the transitions for the call- out spaces needed to be more fluid. The automatic settings create a call-out that is visually abrupt and jarring. Adding a few seconds to the transition time helped to ease the opening, zoom in and out, and closing of the call-out windows.

In some of the processes that involved opening the Finder window, it was commented that the described process makes the assumption that the learner knows how to open a Finder window, which may not always be the case. Those video segments were then reconfigured to start from blank screen and then demonstrate the entire process.



## VI. SUMMARY AND CONCLUSIONS

Students and instructors have traditionally been quite resilient with exploring new tools and relying on each other for support to get them started. Given the varying experience levels and knowledge of the instructors and students, when they pool their resources their collective knowledge has helped to support this transition process. Considering that formal training has not been implemented thus far they have adapted by relying on each other and various resources, ad hoc training, friends, family members and the like.

While there are additional programs that an IPP can purchase to further facilitate the lab environment and curriculum objectives, this project demonstrates IPP usability with stock applications right out of the box. Other programs that might be purchased include:

- Apple Remote Desktop- for instructors to share files and observe student desktops
- Screen Flow- dynamic screen capture
- Audacity and Audio hijack - for audio only record and playback
- QuickTime Pro - video record and playback
- By upgrading to Leopard, additional video record functions are also available with Photobooth and iMovie '08

One of the most poignant aspects of this project was being asked about future implications of technology and lab design. Therefore, that has become an important part of the workshop, with this topic in the wrap-up discussion, raising fears and concerns, sharing information and resources. As the nature of computing becomes more mobile and reliant on the emerging "internet cloud," the future of labs seems to be moving in the same direction-- just as Sun Microsystems prophesized over two decades ago-- the network is the computer. As price the of gas and life in general becomes more expensive, people are seeking out online and remote participation in their courses. They are aware that the technology exists to connect remotely to their schools and are starting to expect

to be able to do so as part of their course work. Some programs with labs feel pressured to have students attend in person to use the media and recording resources to justify the expense of purchasing equipment. Students will eventually be expected to have a computer and a video camera, even if it's just a webcam, to participate in an ITP. Instead of buying books, they will need to invest in their own machines instead of relying on the school to provide them with the most recent audio/video recording technologies, which usually requires years of planning and red tape to acquire. The school can focus on maintaining servers and remote connections, as well as the stimulus materials and a learning management system.

The next step in this process is to observe the learners in action and revise the training based on their feedback and user experience. Combining this feedback with emerging trends in computing, and educational technologies in particular, will allow for further development and exploration of instructional technologies in sign language interpreter training.

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ITEC 894 Creative Work Project  
Nicole Montagna, CI, CT  
Spring 2008

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Cognitive Benefits of Video Production

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## **Appendix**

- A. Evaluation
- B. ITP Site Visits
- C. Student Survey
- D. Instructor Survey
- E. Project Timeline
- F. Team Members
- G. Lab Equipment Specs
- H. Early Tutorial Prototypes
- I. Preliminary training support-handouts

## **A. Evaluation**

### ***Workshop***

#### **Structure**

*Pre-instructional informational session, instructional, post instruction debrief and discussion*

Comments:

#### **Activities:**

*Group discussion and collating of terminology and definitions, group discussion on the future of lab environments and emerging technologies*

Comments:

#### **Content outline**

*Computing, internet, digital video, video production application, emerging technologies*

Comments:

### ***Tutorial***

Please rate the effectiveness of the tutorial on a scale of 1 to 5

1- not very effective

5- very effective

Interface	1	2	3	4	5
Navigation	1	2	3	4	5
Aesthetic	1	2	3	4	5
Videos	1	2	3	4	5
Text	1	2	3	4	5
Overall content	1	2	3	4	5
Usability	1	2	3	4	5

Additional comments:

## B. ITP Site Visits

<b>Program</b>	<b>School</b>	<b>Brief description of video lab environment</b>
Center for Deaf Studies	University of Bristol, Bristol England	3 <sup>rd</sup> generation iMacs and eMacs, using Panda software, created at Bristol
Interpreter Training Program	Gallaudet University, Washington, D.C.	4 <sup>th</sup> generation iMacs, additional audio and video equipment connected via switches, remote viewing application available for instructors
ASL/ITP	American River College, Sacramento	DVD-R camcorders, DVD and VHS, smart classroom, recently purchased current generation of iMacs
ASL/ITP	El Camino College, Torrance	VHS record and playback, experimenting with digital video with Mac and a specialized video configuration
Deaf Studies ASL/ITP	CSUN, Northridge	4 <sup>th</sup> generation iMacs, Apple Remote Desktop for lab management, have studio production equipment but not currently available for use, digital video cameras, VHS
ASL/ITP	Mt. San Antonio College, Walnut	PC computer lab, server for stimulus materials, separate video room for recording
ITP	Santa Rosa Junior College, Santa Rosa	Mac towers, pre-Intel machines, iSight, QuickTime Pro
ASL/ITP	Riverside Community College, Riverside	PC computer lab, server for stimulus materials, separate video room for recording

## **C. Student Survey**

Distributed via Surveymonkey.com

1. Do you own a computer
  - Yes it's a Mac
  - Yes it's a PC
  - No
  - I use a computer someplace else (Please describe)
  
2. Do you participate in Social networking sites? Check all that apply
  - Yes, facebook
  - Yes, myspace
  - Yes orkut
  - Yes another site
  - No
  
3. What kinds of activities do you do online
  - Blog posting
  - Email
  - Find directions
  - Research
  - Shopping
  - Social networking
  - Watch sign language vlogs
  - Watch videos
  - Other
  
4. What kinds of programs do you use most often?
  - Adobe Creative Suite
  - Adobe Premiere
  - Apple Final Cut Express
  - Apple Final Cut Pro
  - Apple iLife
  - Apple iWork
  - Apple QuickTimePro
  - MS Excel
  - MS Word
  - Budgeting/financial management software
  - Industry specific software
  - Tax preapartion software
  - Other
  
5. What kids of programs or functions would you like to learn?



6. Do you have experience creating digital video? If yes, please explain.
7. What kinds of technical issues have come up for you?
8. How do you get help or technical support?
9. Have you been provided with training materials? If so, do you know who created them and is there a way for you to give feedback or evaluate the training tools?
10. What would be the ideal ITP lab set-up?

,

## **D. Instructor Survey**

### **1. Hardware**

- a. What kinds system have you been using previously?
- b. What kind of machines is your lab using now?
- c. How did you/your department decide on the machines you purchased?
- d. Was funding a challenge? How did you support your development?

### **2. Software**

- a. What kinds of software are you using?
- b. Why did you choose this software?

### **3. Stimulus materials**

- a. What kind of stimulus/instructional materials are you using for assignments?
- b. What formats do you use?
  - i. eg. VHS, DVD, .mp3, .mov

### **4. Workflow**

- a. Briefly describe the kinds of assignments instructors give to students.
- b. What is the workflow the students use to complete their assignments?
- c. If this is not the first version of your lab, is this workflow different than what was utilized before? If so, how?
- d. Can you describe how using digital video has impacted your curriculum if at all?

### **5. Training**

- a. Can you describe the general technical skill set of the ITP staff?
- b. Is training and technical support available to students and staff?
  - i. If so, how is it provided?
  - ii. If not, why?
- c. If there were training materials who created them?
- d. Can you describe the process of creating them?
- e. What kind of technical issues have come up for the students?
  - i. What about the instructors?
- f. Is there a feedback or evaluation mechanism to review and revise the training?

## E. Project Timeline

This project is scheduled for 10 months out of 12 for 2008. It would be developed following the academic calendar and implemented over the spring and fall semesters. Ideally, grant funds would be awarded in four payments, two during each semester.

January	Begin transition to using computers Replace VHS cameras and cassette players with iMacs Preliminary training and needs assessment of students and instructors Modify room environment
February	CA ITP survey Transfer select analog stimulus materials to digital format
March	Finalize lab design Re-organize stimulus materials Set-up network Visit ITP labs
April	Continue to set-up lab with additional furniture Finalize training design
May	Set-up completed Trainings designs completed
June, July	<i>Summer hiatus</i>
August	Formative evaluation Implement training for instructors
September	Implementation of new lab Implement training for students
October	CIT conference-present poster session
November	Monitor feedback
December	Complete summative evaluation

## F. Team Members

Project Manager	Nicole Montagna	Manage and direct communication, deadlines, and publicity about project, recruit staff and resources	Involved in all levels of communication, for duration of the project
Instructional Designer	Nicole Montagna	Design training piece, organize information presented conduct needs assessment, liaise with target learners and other technical staff, screen captures	Duration of the project
Sponsor	Shelley Lawrence	Director of Ohlone Interpreter Preparation program, SME	Once a week check in and debriefing
Advocate	Joe McLoughlin	Dean of Deaf Center at Ohlone College	Monthly reports and debriefing
Graphic Designer	Paul Carlson,	Design aesthetic and production, prototype design, layout and formatting of paper and presentation	Part-time for duration of project
Visual Design and Development	Mai Britt Karle	Combine graphics and video elements into flash interface.	Hourly towards end of project
Software/Networking Consultant	Jonah Petri	Consulting and advising on software, storage and networking issues	Monthly check-ins and reports
ISD, Usability Reviewer	Nora Scully	Prototype review Usability evaluation	Weekly check-ins and reports
Interpreter Trainers	Paavo Allen, Shane Blau	Experience with internet video stimulus materials	Monthly check-ins and reports

## G. Lab Equipment Specifications

Student computers	24 inch intel iMacs (purchased May 2007, no longer manufactured)
Instructor Computer and Network server	Mac Pro Tower Dual monitor display (for classroom viewing and instructor viewing)
Rationale for custom built (as opposed to stock) MacPro:	Increased processor speed: useful for running processor-intensive applications (video processing, image editing, rendering, etc.) -- the faster the processors, the more tasks that can be run simultaneously
3.0GHZ DUAL CORE PROCESSORS (TWO)	Increased memory: the more memory the system has, the faster it can manipulate data, resulting in greater application performance, especially when working with large files and memory-intensive applications (graphics, audio, video, etc.)
8GB OF RAM (4 X 2GB)	Increased hard drive storage: the more storage is available, the more video/audio files can be kept on the MacPro as backup
500GB 7200RPM HD	in all four drive bays would provide 2 Terra Bytes of storage (equivalent of 2000 GB)
Two graphics cards	Note: stock is probably adequate, as it is capable of supporting a 23" and 30" Apple HD Display
NVIDIA GEFORCE 7300 GT 256MB	
Two optical drives: CDs/DVDs16X SUPERDRIVE	adding a second SuperDrive will allow CDs/DVDs to be read while the other SuperDrive is burning
BLUETOOTH 2.0+EDR	Bluetooth allows for the use of wireless peripherals like keyboard, mice, etc.
AppleCare: tech support	Extended warranty

<b>Instructor Station</b>	<b>Quantity</b>	<b>Price</b>	<b>Total</b>
Mac Pro Desktop (custom)	1	\$ 8,150	\$ 8,150
20" flat panel display	2	\$ 650	\$ 1,300
24" iMac (for office)	1	\$ 2,000	\$ 1,900
Apple Remote Desktop Software	1	\$ 300	\$ 300
iSight Web Camera	1	\$ 150	\$ 150
*specs and prices relevant to 2006		<b>Instructor's Station Total</b>	<b>\$11,800</b>

<b>Student Stations</b>	<b>Quantity</b>	<b>Price</b>	<b>Total</b>
24 inch iMac (increase memory)	10	\$2,000	\$20,000
Headset microphones	10	\$ 100	\$ 1,000
		<b>Student Stations total</b>	<b>\$21,000</b>

<b>Support</b>	<b>Quantity</b>	<b>Price</b>	<b>Total</b>
Apple Care: iMacs	11	\$ 119	\$1,309
Apple Care: Mac Pro	1	\$ 199	\$ 199
Technical support		\$5,000	\$5,000
		<b>Support Total</b>	<b>\$6,508</b>

<b>Miscellaneous</b>	<b>Quantity</b>	<b>Price</b>	<b>Total</b>
Digital video camera	1	\$ 500	\$ 500
LCD projector	1	\$1,000	\$1,000
Screen for projector	1	\$ 200	\$ 200
Cables and power cords		\$ 100	\$ 100
		<b>Misc Total</b>	<b>\$1,900</b>

## H. Early Tutorial Prototypes


Created for ITEC 745 Flash Animation I -Fall 2006 userwww.sfsu.edu/~montagna/itec745

**Voice to Sign**

These slides are intended as guide to be viewed while using the application.

### Record

- > for audio input
  - select media button
  - select audio input
  - choose folder
  - select track
  - place at playhead
- > select camera mode
- > record with iSight
  - audio will play while recording video



launch   record   save   compress   review

**Voice to Sign**

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### Save

- > Record with iSight
  - click again to stop recording
- > From File
  - Save Project
- > Create sequence
  - drag and drop clips into timeline
- > Save again
  - save repeatedly



launch   record   save   compress   review

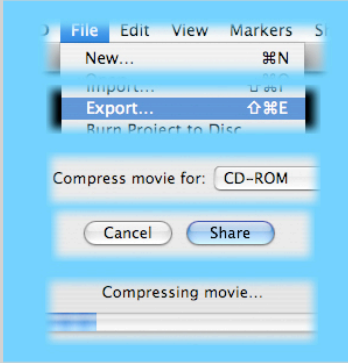


### Voice to Sign

These slides are intended as guide to be viewed while using the application.

## Compress

- > From File
  - choose Export
- > Compress
  - for CD-ROM
  - options will vary depending on length of video
- > This will create a quick time .mov file



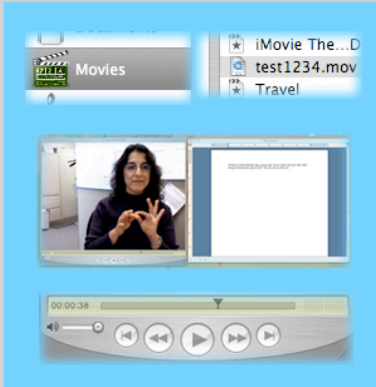
launch    record    save    compress    review

### Voice to Sign

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## Review

- > from finder
  - Movies
- > select project
  - QuickTime .mov
- > for written back translation
  - open text document
  - place next to QuickTime window
- > use controls
  - to view video
  - to note time code



launch    record    save    compress    review

## **I. Preliminary training support-handouts**

File> import movies>select file

Once footage is imported, right click to select entire clip  
Will be outlined in yellow  
Then drag and drop into project library

Events- all the raw footage  
Project- what are you editing together

\*Microphone for voice over  
need to set up lead time

Files sizes  
Version types

### **Cheat sheets**

#### **Keyboard shortcuts**

##### **Mac OS X**

Full list go here

<http://docs.info.apple.com/article.html?artnum=75459>

Command space= spotlight (for searching all files and applications)

Command +tab + browse and select open applications

Control + click = right click, drop down menu

close window = Prt W

close all windows= Option +command+ W

copy= command +C

cut= command +X

eject = command + E

get info = command + I

paste = command +P

save = command + S

undo = command + Z

#### **Anatomy of iMovie HD version 6.0.3**

Canvas

Clip viewer

Pane viewer

Audio tracks on

#### **iMovie short cuts**

<http://www.apple.com/support/imovie/shortcuts/>  
space bar- starts/stops  
split video at playhead= command + T

### **Sign to voice**

Launch iMovie (icon)

Save and where- you are saving the project file, not the movie

If you have a copy of the video stimulus drag and drop it onto the canvas

Or import it.

Editing media> to see microphone option

    Mic off = red inside

    Mic on red= outside

Start recording then play the video

Voice will record over video.

(( ( will add how to record voice only w/o video stimulus here ))

### **Voice to Sign**

Launch iMovie (icon)

Save and where- you are saving the project file, not the movie

Stimulus audio

Mp3 iTunes

QT audio file

Select iSight as camera input (icon)

Created clip will be on right side in clip viewer- raw footage

Drag and drop selection into timeline at bottom, that is the movie you are creating.

Create a small .Mov video file that you can save, share and review on Mac or PC

Export

Share

For web

Where to save? Your hard drive! Back up your files to a secondary hard drive and or online.

<http://www.danslagle.com/mac/iMovie/audio/1004.shtml>