Instructional Experience #1: Self-Paced Learning Experience

Screen Cast Tutorial

The Screencast Tutorial can be accessed/watched at:

http://milan.x10.mx/tutorial/SearchStrategiesCatalog_player.html

Overview of Experience

For my first instructional experience, I created a screencast tutorial using Camtasia Studio, demonstrating to a group of thirty freshman students enrolled in an introductory-level psychology course at a IUPUI, how to use the different search techniques and features to find books within an online library catalog (IUCAT). This instructional experience was designed as part of two part session (each 90 min) to introduce students to information sources (catalogs now, databases next session) and how to use , and more importantly search those sources effectively using different techniques. This instructional experience is important, because not only are the information skills taught in this tutorial been identified as being crucial for information literacy and this course, but as numerous studies confirm, there is a gap among many incoming freshman students in knowing not only how to locate different kinds of informational resources, but in refining results and using different search techniques (limiters, filters etc.) to find information (American Library Association; Head 3-4; Katz 35-36; Head 475-476). This session seeks to address this by applying the "ASSURE" model to create an instructional experience that will consist of not only showing students through a tutorial how to search the online catalog to find books by using different techniques (author subject, etc.), but will use periodic quizzes inside the tutorial to check comprehension, and more importantly will use a worksheet after the tutorial, to assess whether students reached the objectives outlined below. Before students finish and turn the worksheet in, the professor will use issues seen while observing students working to facilitate a class discussion.

Description of Instruction design model and review of the process followed

This instructional experience is designed on the basis of the "ASSURE" model, which is a relatively popular instructional design model. The ASSURE model is a simple and practical, yet powerful "learner centered" model that is effective for integrating media and technology into a lesson (Megaw 2-3; University of Tennessee at Martin). Originally developed by Heinich, Moldena, Russell, and Smaldino some decades ago, this model is based on six parts, starting with the first part, which consists of analyzing the learners for that particular lesson (Lamb Instructional; Megaw 3).

- Analyze learners (Megaw 2-3; Lamb Instructional)

The learners in my instructional experience are first-year college students, who are enrolled in an introductory level psychology course, with a term paper requirement, which requires that students cite at least three books. There are a total of thirty students in the class, who are taking this course as a general requirement. The students have extensive experience using a computer and possess basic **entry**

level computer skills as well as have experience using different kinds of technology. However, most students have limited experience using advanced search techniques or strategies (outside of general keyword search), using the university's computers, or exploring the library website, especially the online library catalog.

This learner analysis was based on a simple pre-session (web survey), which was administered with the approval of the professor. Using the simple and quick web survey, I collected basic demographic data, assessed student knowledge about the library catalog and student search skills, and whether they have the necessary entry skills (technological skills) to use a browse and access the college library website (Lamb Audience). This was done to see if more time should be allocated towards certain aspects of the session, and what should be expanded on. Lastly, students were also asked about their general feelings or attitudes towards research and their past experiences with searching, so as to see if any of the concerns could be addressed in the session, especially as the students are working on the worksheet after watching the tutorial (Lamb Audience).

- State objectives (Lamb Objectives; Megaw 3-4)

  Audience: Freshman students enrolled in an introductory level psychology course at IUPUI.

  Behavior: Will be able to use and apply search strategies and techniques (result limiters/search fields) to effectively search the university online library catalog

  Condition: Given a computer and a self-paced tutorial, as well as an individual worksheet centered on applying different search strategies learned in the tutorial

  Degree: Locate four books

  Given a computer and a self-paced tutorial, as well as an individual worksheet centered on applying different search strategies (C), first-year students enrolled in an introductory level psychology course (A) will able to search the online catalog using different search strategies and techniques (B) to locate four books (D).

- Select methods, media, and materials

  Given that students have experience witch different technologies (Social Networking, Computers, Phones, Videos), but that they expressed some concern and anxiety over searching, methods and materials were selected to match the characteristics of the target audience, and the learner profile collected via the learner analysis (Megaw 4). For this instructional experience, the primary methods and media that were selected/created were a self-paced narrated video tutorial to be watched using a computer/web browser, a paper worksheet after the tutorial, and a class discussion. The first method, a self-paced learning tutorial, will consist primarily of a narrated video tutorial, created/recorded by the librarian using Camtasia Studio 8, for the purpose of demonstrating to students the different search strategies for searching the online library catalog, and will be accessed by the students through using a computer and browser and visiting the link provided at the top of the worksheet. After the students watch the self-paced tutorial, they will then work on a "Strategies and Techniques for Searching

IUCAT" worksheet created by the librarian, which will consist of using the computer, and the online library catalog to complete a set of questions to find four books. As the students are working on the worksheet, the instruction will use this opportunity to observe students, and use common questions asked by students to facilitate a class discussion (using the discussion method)(Megaw 4). Lastly, the worksheets will then be collected and assessed by the librarian and professor using a rubric, and will be returned to the students at the next session.

- Utilize media and materials (University of Tennessee at Martin)

For this instructional experience, the primary materials discussed above will be utilized by the students in a specific way. The first media, a self-paced learning tutorial, be watched by the students in the beginning of the course, to set a foundation for the worksheet, and will be used to provide/review information periodic quizzes throughout to test student comprehension. After the students access and watch this tutorial via the provided link at the top of their worksheet, they will then work on the "Strategies and Techniques for Searching IUCAT" worksheet created by the librarian to answer specific questions related to specific strategies/techniques discussed in the tutorial, so as to find four books. To do so, they will login to the computer and online library catalog, and will work their way through the worksheet, which will guide students in answering questions and finding Books, based on the specific strategies/techniques they learned from the tutorial. After the worksheet is completed, the worksheet will then be used to facilitate discussion partially.

- Require learner participation

Ensuring "learner participation" is seen as being central element to the "learner centered" nature of this model (Megaw 5-6). There are several elements inside this instructional experience that align and meet this expectation. The first area that requires learner participation, is when students login in to the tutorial and watch the tutorial, they must answer periodic checkpoint quizzes inside the tutorial to proceed with completing the tutorial. These quizzes are used as means to engage students, provide review, and ensure students are understanding the content. The second way that students engage in this experience is when they are required to complete a worksheet after the tutorial. During this part, students will practice what they learned from the tutorial, by not only learning how to access the online library catalog, but apply specific strategies/techniques learned in the screencast tutorial, so as to answer questions and find four books on the subject. The last part that will require learner participation is when students must present one search strategy they formulated for their topic with the class, and when the librarian uses those experiences to facilitate a class discussion. During this time, the librarian will use the presentation to facilitate a class discussion (using the discussion method), based on the specific issues common among the presentations. As he does so, the librarian will ask the class questions, provide feedback to student presentations, or clarify/suggest ways to improve errors (University of Tennessee at Martin).

- Evaluate and revise

In order to assess whether students met the specific objectives indicated above, and that the instructional experience was designed in an effective manner and that the experience was beneficial for the students, different techniques were used to evaluate the audience, as well

as the instructional experience in general (University of Tennessee at Martin; Lamb Research). Since this instructional experience has several parts, different methods were implemented to measure whether students were progressing towards the goal, and whether they had reached the objective formulated above at the end of the instructional experience (Lamb Objectives). During and before students would submit the worksheet, the instructor would walk around and observe students working, providing feedback, answering questions, and addressing any concerns (Lamb Objectives). At the end of the instructional experience, and after the students had finished the worksheet, the instructor would then evaluate that worksheet on the basis of a rubric created by the librarian. Since the worksheet was designed to guide students in answering question by using specific strategies/techniques discussed in the screencast tutorial, the rubric is designed to test each strategy/technique and whether students applied those techniques correctly, and found four relevant books. By using this rubric, the librarian can assess student performance on the basis of four performance indicators, and rank students in terms of performance (Meets Expectations, Needs Improvement, Unacceptable), and provide students more in-depth personalized feedback, especially areas of needed improvement (Lamb Objectives).

In addition to evaluating to see whether students reached the objectives, information in this experience will be collected to evaluate the effectiveness of "the instructional process" (University of Tennessee at Martin). This will be done by having students answer questions on the last page of the worksheet, which will consist of asking students questions related to the overall instructional experience, such as whether the tutorial/worksheet was clear, easy to understand, and whether they understood what they were learning (Lamb Research; University of Tennessee at Martin). After these worksheets would be collected, these comments/suggestions would then be compared to the data gathered from the rubric, and would be used to determine not only if the objective was reached, but if the way the instructional experience was designed was an effective means for reaching that end (Lamb Research; Megaw 6). This evaluation would then be used to improve the instructional experience the next time the librarian teaches this same content, as well as revise the materials and/or tutorials to better meet the expectations and needs of the students (Lamb Research).

Established need (based on two professional sources). How will the experience address needs?

This instructional experience seeks to address an area of deficiency in information literacy skills that are seen among first year college students across America. In fact, as numerous studies on the information skills of first year students have shown, there has been a visible gap among college freshman in their ability to conduct and use advanced search strategy skills to find information, refine/narrow their results, and locate different type of resources (Owen 20-22; Head 3-4; Katz 336; Head 475-476; Ken 19). These studies have shown that students not only lack the necessary knowledge and skills to effectively search using various search strategies such as, subject headings, use of multiple fields, and Author searching, but that a majority of students rely on using Google and basic search queries to search for information (Owen 20-22; Head 3; 15-17; Katz 336; Ken 19; Mittermeyer and Quirian 41-42). In fact, in a series of studies conducted by Alison Head on the information seeking behavior of college freshman and high school seniors, it was found that close to seventy five percent of students had a difficulty "coming up with keywords to narrow down searches" (instead they used basic words such as in Google) and "formulating efficient search queries," and some twenty three percent had

difficulty finding books and other resources from the catalog (Head 3-4; 15-17). Similarly, in a survey of some 165 incoming freshman students at Worcester Polytechnic Institute, it was found that some forty four percent didn't know how to use Boolean Searching, seventy seven percent didn't know how to use truncation, and some forty seven percent had difficulty locating resources (Dao, et al 22-23). Lastly, based on a series of studies analyzing pre-tests given to freshman students at Peninsula College between 2003 and 2008, it was found that some seventy percent of students were unable to find a book based on specific search techniques, such as using a title or author of the book (Kent 19). This was similar to studies conducted in 2003 on incoming freshman students at various Quebec universities, which showed that almost one third of students overall applied the incorrect technique when searching for books, such as using the subject field, instead of the author field (Mittermeyer and Qurian 40).

In addition to searching for information, the second aspect of effective searching, refining and narrowing results, is another strategy and techniques that many incoming freshman students are deficient in (Katz 36; Head 15). In fact, in a report released by the "Educational Testing Service" detailing their evaluation of some 6,000 students at over sixty five institutions, it was found that students generally struggled in refining and narrowing down results correctly, with only thirty five percent successfully selecting the correct search revision when searching, and some forty percent entering "multiple search terms to narrow results" (Katz, 36-37). Similarly, in the series of studies conducted by "Project Information Literacy" discussed earlier, it was also found that some fifty seven percent of students had difficulty with "filtering and sorting through irrelevant results" (Head 3-4; 15). Lastly, not only have studies have shown a difficulty in searching for information, but a knowledge gap in recognizing the purpose and role of online and library catalogs in comparison to other types of sources (Mittermeyer and Qurian 61-62; Owen 22). In fact, in the study discussed earlier concerning freshman students at various Quebec universities, it was shown that many students don't know what a catalog Is or how it is different, with close to half of students unable to or partially able to identify the type of materials available in a catalog (Mittermeyer and Qurian 52-53). Thus as we can see, there is a strong deficiency among first year students in regards to their ability to not only know when and what the purpose of a catalog is, and how to effectively search information, but the techniques to use to refine their results.

This instructional experience seeks to address these gaps in several ways. In this instructional experience, students will learn many of the skills that studies have shown are lacking among freshman college students. Through the self-paced narrated tutorial, students will be introduced to the IUPUI online library catalog, what its purpose is, and what can be found in the catalog. As the tutorial progresses students, will then learn not only how to conduct effective searches using different techniques, but will learn when and how to search by author or subject, how and why to refine their results, and the different options that are available to them. In addition, after the tutorial ends, the students will then work on a worksheet which not only review everything learned, but will guide students in answering questions by applying specific skills, techniques and knowledge learned in the tutorial. Through this worksheet, students will learn to apply author/subject searching, and using various options/limiters (Date, Format etc.), to effectively find books they are looking for. After the students complete their assignment and it is submitted to the librarian, the librarian will evaluate the worksheet

using a rubric, which will be used to provide personalized feedback and areas of needed improvement for students, which will allow students to know what they need to improve and how they can improve do it. Thus, as we can see, this instructional experience will be conducted in a specific way to address all these key elements which have not only been identified as being necessary by national standards, but that have been seen lacking in numerous studies across the country.

Audience characteristics and implications with justification for specific target audience

Learner Characteristics: As discussed earlier, the learners in my instructional experience are first year college students (18-19 yrs. old), who are enrolled in an introductory level psychology course, with a research paper requirement, requiring students to cite at least four books. The students have extensive experience using a computer and possess basic entry level computer skills (using a mouse, browser etc.), and have experience using different kinds of technology (Smart phones, YouTube, Twitter etc.). In addition, most students prefer to learn with visuals and demonstrations, instead of just listening to a lecture. However, most students have limited experience using advanced search options/strategies (outside of general keyword search in Google). Lastly, although students have used other catalog systems before, the learner analysis showed that students are nervous and anxious about the experience, especially over searching for and narrowing results in an unfamiliar interface, especially using advanced techniques, such as subject and author searching (Lamb Audience). However, it should be noted that the students do have experience using basic keywords.

Instructional Implications: The leaner characteristics indicated above suggest many ways that this instructional experience needs to be tailored to this user group. First, based on the entry skills of the users, no time in the video tutorial will be spent showing users how to login to the computer or how to use a web browser, or even telling students how to watch the tutorial itself. In fact, given that the students have experience using many different kinds of technology, this would be counterproductive. Secondly, given that users have already used and have some experience with catalogs, not too much time in the tutorial were spent showing students extensively the different features. However, given that the analysis showed that students are nervous and anxious about learning new strategies and applying them in an unfamiliar interface, it was decided that not only would part of the worksheet be used as discussion, with each user sharing one search strategy for their topic, and the instructor providing feedback/improvement), but would also be assessed with a rubric, which would provide specific feedback that would be given to students to help them improve their strategies. Lastly, given that students also have experience using basic keywords, little time was spent in both the worksheet and in the tutorial on teaching students how to formulate keywords.

Standards listed or professional need established

Information Literacy Competency Standards for Higher Education (ACRL)
Standard Two, Indicator 1:

"The information literate student selects the most appropriate investigative methods or information retrieval systems for accessing the needed information" (ACRL).

d) "*Selects efficient and effective approaches for accessing the information needed from the investigative method or information retrieval system"* (ACRL).

Standard Two, Indicator 2

"The information literate student constructs and implements effectively-designed search strategies" (ACRL.)

b) "Identifies keywords, synonyms and related terms for the information needed" (ACRL).

c) "Selects controlled vocabulary specific to the discipline or information retrieval source" (ACRL).

d) "Constructs a search strategy using appropriate commands for the information retrieval system selected (e.g., Boolean operators, truncation, and proximity for search engines; internal organizers such as indexes for books)" (ACRL).

Standard Two, Indicator 4

b) "Identifies gaps in the information retrieved and determines if the search strategy should be revised" (ACRL).

c) "Repeats the search using the revised strategy as necessary" (ACRL).

Instructional goal stated

Students will be able to use and apply various different search strategies and techniques to find books effectively using the online library catalog.

Learning objectives stated

Given a computer and a self-paced tutorial, as well as an individual worksheet centered on using and applying different search techniques and strategies (C), first-year students enrolled in an introductory level psychology course (A) will able to locate four books in the online catalog effectively (D), using different search strategies (Author Searching) and techniques (Limiters, Options) (B).

A: Freshman students between the ages of 19 and 20, enrolled in an introductory level psychology course, with a research paper requirement.

B: After watching the tutorial and completing the worksheet, students will be able to use and apply different search strategies and techniques within the online catalog (refining results using limiters, using the subject terms) to effectively search the university online library catalog and find the books necessary to complete their research assignment.

C: Students will be assigned a computer in the library classroom, and will be provided a link to watch the tutorial. In addition, students will complete an individual worksheet to find four books, centered on applying specific search strategies (subject searching, author) and

techniques (options, limiters) that can be used in the online catalog, and that they learned in the tutorial.

D: By the end of completing of the worksheet, students will have located four books for their research paper using different strategies (subject searching, author searching), techniques, and search limiters inside that were learned in the screencast tutorial.

Assessment matched to objectives and integrated into instructional materials

There are several components in this instructional experience that are used for assessment purposes. These components are not only matched with the objectives, but some are also integrated into the screencast tutorial itself. The first way that students will be assessed is within the actual tutorial. That is, students will be given periodic quizzes throughout and the end of the self-paced tutorial to test comprehension/review basic concepts, which will be emailed to the instructor. After the tutorial ends, the students will then be given a "**Strategies and Techniques for Searching IUCAT"** worksheet, which will consist of applying specific skills/techniques learned, and towards the end, finding four books. Once the students complete this worksheet, this worksheet will be used as the formal summative assessment, because once the students turn in the worksheet, I along with the professor will assess the worksheet in accordance with the rubric provided below, and will provide comments related to skills or areas that need improvement for each student (Lamb Objectives). This feedback along with the rubric will be given back to the students at the next class, so that they know what they need to improve, or what techniques/strategies they need to review (Lamb Objectives). This rubric will assess students on the basis of four competency areas (performance indicators), which students are expected to demonstrate based on the different types of strategies, techniques, and knowledge they should have learned watching the tutorial, and that they should have been able to apply in this worksheet. The rubric as an assessment was selected because these strategies/techniques and performance expectations are complex, and rubric is the best way to assess students in terms of their overall performance demonstration of certain complex cognitive and psychomotor skills(Lamb Objectives).

As you can see below the learning objective match these four indicators

Learning Objectives:

Given a computer and a self-paced tutorial, as well as an individual worksheet centered on using and applying different search techniques and strategies (C), first-year students enrolled in an introductory level psychology course (A) will able to locate four books in the online catalog effectively (D), using different types of search strategies (Author Searching) and techniques (Limiters, Options) (B).

Indicators in the Rubric:

- Identifies and uses appropriate keywords to search for books
- Applies limiters (language, format, date etc.) correctly to narrow results, and provides a justification for doing so.
- Uses and applies advanced search strategies (subject, title, date author-searching) correctly or search options to find specific results, and provides a logical reason for doing so
- Identifies and locates four relevant books for their research paper, providing a description for each book.

Name of Student _____ Total Score _____/ 16pts

Performance Indicator	Meets Expectations (4pts)	Needs Development (2pts)	Unacceptable (0pts)
Identifies and uses appropriate keywords to search for books **(4pts)**	Student identifies and uses a few different appropriate keywords to initiate search	Student identifies some appropriate keywords, but could use improvement	Student either fails to use or identify appropriate keywords, or does not provide keywords at all.
Applies limiters correctly (format, date) to narrow results, and provides a reasoning for doing so **(4pts)**	Student identifies and applies limiters correctly, and provides justification for doing so	Student fails to identify or apply one or more limiters, or provides an inaccurate justification	Student fails to identify limiters, applies limiters incorrectly, or fails to provide any justification for doing so.
Applies advanced search strategies (subject, author, Publication year) or search options **(4pts)**	Student identifies and applies correctly 2 or more advanced search techniques (subject, date), providing justification for doing so	Student identifies and applies some techniques correctly, but is deficient in one or more, or fails to provide justification	Student fails to apply search strategies correctly, and fails to provide any justification for doing so.
Identifies and locates four relevant books for their research paper, providing a description for each**(4pts)**	Student identifies four or more relevant books, and provides a clear description.	Student identifies three or less books, provides one or more books that are not relevant, or one or more descriptions	Student identifies one or more articles that are either irrelevant, or do not include a description of the author, title or content.

- **Feedback Part #1**

- **Feedback Part #2**

Learning theories described and applied (based on 2 professional sources)

For this instructional experience, there were a few different types of learning theories that were applied. In terms of the self-paced tutorial (screencast tutorial), the theory that was applied was the "Cognitive Theory of Multimedia Learning" and the "Cognitive Load Theory," while the theoretical justification for designing the worksheet was done in accordance with the "Metacognition Theory" (Lamb Learning).

The first theory that was applied was the "Cognitive Theory of Multimedia Learning." Since the pre-session learner analysis showed that students are familiar and have experience using new technology, including YouTube, and prefer and enjoy to learn using visuals, instead of the traditional lecture format, this theory was decided as being the best to present the content that should be learned by the students. This theory, which was developed by Richard Mayer, focuses on the role of multimedia elements (picture and video) in how individuals learn given the limited memory of the human mind, and the nature of how humans process and interpret audio and words(Mayer 59-60). In this respect, Mayer pointed out that meaningful learning "occurs when learners engage in active processing," and that when words and pictures are presented simultaneously, they help the user engage and develop a deeper understanding of the information being presented, than if they did just one (Mayer 60-68; Oud 167). This theory's focus on these two different processes coincides with the nature of screencasts, such as the one in this session (Sugar, Brown, and Luterbach 3). In fact studies have proposed that screencasts enhance learning, because they provide "multiple input channels by presenting an expert performing and describing a task," for which theory is based on (Sugar, Brown, and Luterbach 3). In this particular tutorial, these foundational underpinnings of this theory were applied to the tutorial by following certain recommendations made by several researchers (Bull 615-616).

The first way that this was done to ensure that the way the information was presented was done in two modes (Bull 615). Since this tutorial is a screencast tutorial that is narrated, but also has presents a screen showing what is happening, this allowed me to create an effective design that would allow students to be engaged simultaneously. Furthermore, as part of the recommendation to ensure interactivity, periodic quizzes were implemented to facilitate student participation, and a worksheet was provided to engage students and allow them to practice hands-on what they learned in the tutorial (Mayer 67-68). Lastly, Mayer's "Coherence Principle" was applied to minimize cognitive load, by using as few words/pictures, and excluding irrelevant sections (Bull 616; Mayer 66). This need for minimizing cognitive load in the "Cognitive Theory of Multimedia Learning", is related to the last type of learning theory and its implications, the "Cognitive Load Theory," which was applied within this instructional experience(Lamb Learning). The Cognitive Load theory, which was designed by John Sewell, recognizes and takes into consideration an individual's memory in learning, noting the limitations of memory, and the instructional implications associated with that limitation (Sugar, Brown and Lutchhach 3; Chikatla and Ismail). In other words, the theory recognizes that since working memory and information processing capacity is limited, instructional materials need to be designed in a way to reduce the amount of "extraneous load," and information presented, such as by using chunking and other recommendations (Sugar, Brown and Lutchhach 3; Chikatla and Ismail; Oud 166-168). Since certain

materials are complex, such as teaching advanced search strategies and techniques, certain guidelines are recommended for ensuring that the information load is minimal. In fact, with the rise of screencasts, researchers such as Joanne Oad, have made recommendations on how to address the issue with this theory, many which were implemented in this instructional experience (166-168).

The main guidelines that were applied and implemented to address the implications associated with the cognitive load theory, were focusing/ directing students to the main points of the objective and reducing "extraneous loads", chunking/ dividing the content into small parts, and having a consistent format (Oud 166-168). These guidelines were implemented in many ways. First, the video tutorial was divided into two main parts, with one part focusing on some basic limiters/options to be applied, and the second focusing on more advanced techniques. Given the amount of options and strategies available, the tutorial was designed to ensure that only the main points were covered, especially those that would be relevant to successfully finishing the worksheet and finding the four books for their papers. Throughout the tutorial, different pointer effects (spotlights, sounds) were used to point users to important elements of the catalog, and the whole video was consistent in format (Oud 168). Lastly, it was ensured that as much visual were used with words to ensure active engagement.

Results of three one-to-one formative evaluation subjects

#1. The first person that watched my tutorial and completed the worksheet was a friend of mine from school, who is twenty three years old. I emailed her the link and the worksheet, and being technologically savvy as some of the learners in this instructional experience, she found it relatively easy to access the video and the IUCAT catalog. Furthermore, based on watching the tutorial, she found it to be "very informative," loved that the quizzes were included, and found the overall tutorial "clear and easy to follow," especially with the "effects" used. In addition, she indicated that she had "no problem" completing the worksheet, as the examples on the worksheet and in the video helped her understand the how to use certain features, and she was able to successfully complete all the questions. However, even though she did feel the worksheet was easy, she felt that some of the questions could have been improved and, such as part three dealing with subject searching, which she felt was a little "confusing and difficult [to understand]." Nevertheless, even with some of these bad experiences, she felt that she "learned a lot," and was able to complete all of the worksheet, and find books in the catalog. In fact, based on my assessment **of 14/16 on the rubric (as well as the quiz result – 85percent), which** was used to evaluate her worksheet, it is clear that the tutorial and the worksheet were effective in helping her reach the objective set for the instruction.

#2. The second person that watched my screencast tutorial was my mother, who is in her mid-40. I sent her the quiz via email, but being a not very technologically adapt person, she had a little bit of trouble accessing the link and watching the tutorial. Although she was able to access the link, she had some trouble completing the quiz, because she did not know that you had to click "Submit Answers" to continue with the second part of the tutorial. After watching the tutorial and taking the quizzes, she informed me that she had some difficulty understanding some of the "words in the presentation"

especially because she has never used a catalog before. Although she indicated that she felt the tutorial was "interesting," and easy to follow, especially with the "zooming in" she felt that some parts should have been "explained better." Lastly, in terms of the worksheet, she liked how it "provided guidance and assistance" to completing it, but was a little confused by a few questions. Nevertheless, she did complete the worksheet and was able to find various different books, and after I assessed her worksheet with a **rubric, she received a score of 10(along with 70% quiz score),** which equates to around sixty seven percent. Thus, this seems to suggest that the tutorial was to a certain extent helpful for her in learning the strategies and techniques for searching the catalog.

#3. The last person that I sent the link to the tutorial and the worksheet was a fellow co-worker, who is 19 years old. Because he was in the same range as the learners intended in this learner analysis, and is a freshman in college, I thought his comments and experience with both components would be a good representation of how this experience might play out. After having watched the tutorial and completed the worksheet, he told me that he found the tutorial to be "clear and easy to follow," with great "examples" of how to use the features. Furthermore, he pointed out that while he "enjoyed the quizzes," the worksheet could have been put better together. In fact, he said that while what he learned about the catalog "was helpful in completing the worksheet," some of the wording could have been better in the first part of the worksheet, especially the part on using limiters. Nevertheless, he did indicate that he selected "Agree" on all parts of the student evaluation at the end. Lastly, he was able to successfully complete all the parts of the worksheet, and based on the rubric I used to assess whether he successfully reached the learning objectives stated, **he received a score of 16/16.** This overall score indicates that that the student demonstrated proficiency in exemplifying all the skills identified in the performance indicators that are consisted with the objectives stated.

References

"ASSURE Model." *The University of Tennessee at Martin*. N.p., n.d. Web. 29 Mar. 2014. <http://www.utm.edu/staff/grakes/750/750assuremodel.html>.

Brown, Abbie, Kenneth Luterbach, and William Sugar. "The Current State of Screencast Technology and What Is Known About Its Instructional Effectiveness." *Society for Information Technology & Teacher Education International Conference 2009*. Ed. Gibson, Ian, et al.s.: AACE, 2009.

Bull, Prince H. "Cognitive Constructivist Theory of Multimedia: Designing Teacher-Made Interactive Digital." *Creative Education*. 4.9 (2013): 614-619.

Chikatla , Suhana, and Taimur Ismail . "Cognitive Load Theory." *Online Learning Laboratory*. University of South Alabama, n.d. Web. 5 Apr. 2014.

Dao, Kien, Gary Katzoff, Benjamin Lipson, and Binh Pham. "ASSESSING FIRST - YEAR I NFORMATION LITERACY AT WPI." *Worcester Polytechnic Institute* . N.p., 3 May 2011. Web. 30 Mar. 2014.

“Information Literacy Competency Standards for Higher Education." *Association of College and Research Libraries*. American Library Association, 2014. Web. 28 March. 2014.

Head, Alison. *Learning the Ropes: How Freshmen Conduct Course Research Once They Enter College*. Rep. Project Information Literacy, 05 Dec. 2013. Web. 15 March. 2014.

Katz, Irvin R. "ETS Research Finds College Students Fall Short In Demonstrating ICT Literacy: National Policy Council To Create National Standards." *College & Research Libraries News* 68.1 (2007): 35-37. *Library & Information Science Source*. Web. 29 March. 2014.

Kent, David. "Student Search Skills Using Library Online Resources: A Small Study." *Alki* 24.3 (2008): 19-21. *Library & Information Science Source*. Web. 29 Mar. 2014.

Kent, Julie. "Search Strategies: Worksheet (In-Class)." *SlideShare*. N.p., 17 Apr. 2011. Web. 22 Mar. 2014. <http://www.slideshare.net/julieannekent/search-strategies-worksheet-inclass>.

Lamb, Annette. “Audience Analysis." *Information Inquiry: Instructional Strategies for Library and Information Professionals*. N.p., 2014. Web. 29 March. 2014.

Lamb, Annette. “Instructional Design." *Information Inquiry: Instructional Strategies for Library and Information Professionals*. N.p., 2014. Web. 29 March. 2014.

Lamb, Annette. “Learning Theories." *Information Inquiry: Instructional Strategies for Library and Information Professionals*. N.p., 2014. Web. 31 March. 2014.

Lamb, Annette. “Objectives and Assessment." *Information Inquiry: Instructional Strategies for Library and Information Professionals*. N.p., 2014. Web. 30 March. 2014.

Lamb, Annette. “Research and Evaluation." *Information Inquiry: Instructional Strategies for Library and Information Professionals*. N.p., 2014. Web. 29 March. 2014.

Meyer, Richard E. "Cognitive Theory And The Design Of Multimedia Instruction: An Example Of The Two-Way Street Between Cognition And Instruction." *New Directions For Teaching & Learning* 2002.89 (2002): 55. *Academic Search Premier*. Web. 5 Apr. 2014.

Magaw, Angela. "Deconstructing the Heinich, Moldena, Russell, and Smaldino Instructional Design Model ." *Laman Web Rasmi IPGM Kampus Pendidikan Islam.*. N.p., n.d. Web. 29 Mar. 2014. <http://ipislam.edu.my/kplir/Bacaan/Assure/idm_angela.pdf>.

Mittermeyer, Diane, and Diane Quirion. *Information Literacy: Study of Incoming First-Year Undergraduates in Quebec*. Montréal: Conférence des recteurs et des principaux des universités du Québec, 2003.

Oud, Joanne. "Guidelines for Effective Online Instruction using Multimedia Screencasts." *Reference Services Review* 37.2 (2009): 164-77. *ProQuest.* Web. 5 Apr. 2014.

Owen, Patricia. "A Transition Checklist For High School Seniors." *School Library Monthly* 26.8 (2010): 20-23. *Academic Search Premier*. Web. 29 Mar. 2014.

"Search Strategy Worksheet." *Western Libraries*. Western University, n.d. Web. 27 March. 2014. <http://www.lib.uwo.ca/files/taylor/Search_Strategy_Worksheet.pdf>.

Sugar, William, Abbie Brown, & Kenneth Luterbach. "Examining the anatomy of a screencast: Uncovering common elements and instructional strategies." *The International Review of Research in Open and Distance Learning* [Online], 11.3 (2010): 1-20. Web. 5 Apr. 2014