

CAPSTONE PROJECT REPORT

Instructional module for St. Nicholas GOC

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Executive Summary

Research was done to find what needs a religious nonprofit organization had. After surveys, interviews, and observations, it was discovered that one of its branches, a local church, needed training in regard to technological devices associated with their entertainment center. A front end analysis of that church's parish revealed that web based instruction and a print job aid would address their needs. Further research yielded that the Elaboration theory, in conjunction with the Andragogy Model and other supporting theories and research, provided the framework with which instructional products were designed and developed. Initial data from evaluating those products showed marginal success in instructing the target population from that organization, which were adult learners. Before full implementation of the instructional products can take place, adjustments must be made to the design of the web based instruction. These adjustments include redirecting the navigational flow, include option buttons for audio narration, organize text so that it appears less daunting, and include more interactive demonstrations for the terminal skills being learned. Further evaluation, along with designing, developing, and delivering a supplemental instructional seminar are also recommended thereafter.

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INTRODUCTION

Background

The local Greek Orthodox Church (GOC) operates under the direct guidance of the Greek Orthodox Metropolis in Atlanta, Georgia. This metropolis oversees the functions of all Greek Orthodox communities in a number of southeastern states, which includes North Carolina. Overseeing all the metropolises of the Greek Orthodox communities in the United States is the Greek Orthodox Archdiocese of America, which is located in NY, New York. Finally, overseeing Orthodox communities throughout the world, including Greek-American and other Orthodox organizations, is the Patriarchate which is located in Constantinople, or present day Istanbul, Turkey. Their logo represents this dynamic (see Appendix N).

Internally, there is the Parish Council and numerous parish ministries that work hand-in-hand to carry out the organization's mission (see Appendix M). The Parish Council is an elected governing body of this nonprofit organization. Parish council members serve a two year term and are elected by GOC members or parishioners, and those offices include a president, vice president, secretary, treasurer and other "assisting" members. Their activities are assisted, supported, and overseen by the entire St. Nicholas community. The Parish Ministry Team leaders are elected annually by the parish priest. These elected members oversee half dozen committees, and each has a number of subcommittees. The committees include Education, Hellenic Culture, Youth Diakonia, Liturgical Life, Communications Ministry, Family Life, and Outreach & Evangelism (see Appendix O).

The parish council has a different working dynamic with the Parish Ministry Team, and the parish priest himself. The parish priest presides over the entire Parish Ministry Team, but works in conjunction with the parish council. The parish council is responsible to work with the

Metropolis of Atlanta for the assignment of the priest for the parish. The parish council also apportions all resources for the daily operating systems of the Greek Orthodox Church of America, the salary of the parish priest, and any resources that the Parish Ministry Team requires. The financial means to do so is accumulated through fellowship (cumulative pledges/donations from attending members of GOC), fundraisers and other donations from affiliated and non-affiliated organizations. This means that all major decisions affecting St. Nicholas Greek Orthodox Church must first be approved by the parish council.

There are a number of various stakeholders in the project described here, where the expectations of the university panel members is more important than the needs of the client, as is stated in the capstone project instructions, but getting approval from the parish council was essential. The organizational needs would have been met by creating print instruction as the initial and primary delivery system, coupled with a complementary website and instructional seminar had it not been for the UNCW program requirements. As it is, that approach has been supplanted by a more technology centered CBI module embedded online, with a complementary print job aid (see Appendix AB). The design and development of the instructional seminar itself has been postponed for a later date.

LITERATURE REVIEW

Computer Based Instruction (CBI)

Computer Based Instruction can be defined as the use of computer programming designed to provide meaningful instruction anytime and anywhere (Horton, 2000). Computer based training and instruction has been in use since the early 20th century by the U.S. military with much success (Koonce, 1998). In the Mayfield study (2008), CBI was used to teach spelling to a small group of students, in place of a teacher, with a pretest-posttest design. The

learners were encouraged to go back to computer based instruction embedded online until the desired rate of success was achieved (Mayfield, et. al., 2008). Bedwell (2010) suggests that this type of delivery system has seen a successful resurgence since the mid-20th century, thanks to improved strategies or “considerations” that incorporate evolving multimedia tools when it is best to do so. These tools range from traditional text-based programs to advanced artificial intelligence type options (Bedwell & Salas, 2010). In a study performed by Wagner (2004), it was discovered that, “perceived usefulness plays a very important role in mediating the relationships between attitudes toward use and... behavioral intentions” (Wagner & Flannery, 2004, pg. 393).

Adult Learning

Adult learning takes into consideration the differing circumstances, cognitive abilities, experiences, and personality or character older learners bring to the learning environment. Knowles defined Andragogy as an adult model in contrast to Pedagogy that provides a more flexible learning environment to better suit the needs of that type of learner. He points out that adult learners suffer more anxiety in a traditional classroom setting, so giving them more control over instruction helps to alleviate that, as well as assist with motivating them to participate more in the instruction (Knowles & Associates, 1984).

The Andragogy model was originally designed for adult learners that can bring their own experiences to the instructional process. It recognized the different circumstances surrounding adult learners and deviated for that reason from the traditional pedagogy approach (see Appendix F). “Adult learners have arrived at a self-concept of being responsible for one’s own life, of being self-directing... develop a deep psychological need to be perceived by others, and treated

by others, as capable of taking responsibility for ourselves” (Knowles & Associates, 1988, p 28-29).

There are some limitations to computer based instruction, and therefore only certain elements of the Andragogy model, a system for adult learning, will be used. Climate Setting will be used by creating an environment that is supportive, pleasurable, relevant and authentic; that is to say that the learner will be engaged in this instruction from their own homes or other comfortable environments, or will be able to use it on site through a number of different delivery systems. The learner will be involved in the planning by allowing them to pick and choose which lesson, or learning objectives, that they will learn, and how it will be delivered: that is, will they use the job aid alone or use the instructional website. A self-assessment tool will be embedded on the website so that the learners can assess their own learning, and so that they can provide feedback in order to help improve on instruction (Knowles & associates, 1984).

The Elaboration Theory

Charles M. Reigeluth and associates formulated an instructional model based on previous sequencing instructional models, such as Bruner’s Spiral Sequencing (see Appendix J). It was designed to organize complex instructional content on a macro level and initially deviated from Robert M. Gagne’s hierarchal approach and domains (see Appendix I). It instead originally used three major domains of his own to organize types of content: Conceptual, Procedural, and Theoretical (Reigeluth, 1983). Adjustments to this model have been made through the decades and the new paradigm shift and approach to instruction had been better incorporated. It’s approach facilitates learner motivation by making the sections of instruction more manageable and relevant” (Reigeluth, 1999, pg. 427-28). Mayer criticizes the early version of the model in calling it “vague” and difficult for designers to follow, lacking an explanation of why the

“theoretical mechanisms” work, is not learner-centered enough, and lacks the empirical evidence to validate its success or effectiveness (Mayer, 1981).

This model was applied in order to address issues surrounding content, context and learner (see Appendix Q). The content is diverse, despite being focused on one area of skills and knowledge, and that is exactly why this model is designed; particularly in starting with an “epitome” and progressing onto accruing levels of elaboration. “An epitome is an overview or advance organizer which epitomizes the subject-matter content to be taught in a course rather than summarizing it. It is formed into ‘boiling down’ the course content to its essence...” (Merrill, 1994, pg. 86-87). Lastly, it alleviates the logistical issues with using other delivery systems and methods for these training purposes for this particular organization. Mayer emphasizes how the model is designed to facilitate “meaningful learning,” which enhances learner motivation (Mayer, 1981, pg. 23-24). The learning can be more meaningful to the end user because they get to choose the content that they would like.

“[This theory’s] development was guided by a dissatisfaction with Gagne’s hierarchical, parts-to-whole sequence and by the metaphor of the ‘zoom lens’ as an alternative” (Reigeluth, 1987, pg. 245). Reigeluth uses an analogy of a zoom lens camera to relate how to organize and view content using this model:

A person starts with a wide-angle view, which allows him or her to see the major parts of the picture and the major relationships among those parts, but without any detail. The person then zooms in on a part of the picture... Zooming in one level on a given part of the picture allows the person to see more about each of the major subparts. After having studied those subparts and their interrelationships, the person could then zoom back out to the wide-angle view to review the other

parts of the whole picture and to review the context of this part within the whole picture. (Reigeluth, 1983, pg. 340)

It uses a “simple-to-complex sequence,” from an epitome of the whole to increased levels of elaboration (see Appendix G), instead of breaking instruction down from more complex items to more simple items until you reached the smallest and simplest component, which is the method used in Gagne’s hierarchy (see Appendix H). There has also been much flexibility given to the designer in choosing how within-episode sequencing is organized, and the freedom to choose which additional instructional or hierarchal (see Appendix I) model is incorporated in later adaptations of the model (Reigeluth, 1999).

Project Discovery

While preparing to propose some project considerations that included a worship practice module and catechism course improvements, a need specific to the client was discovered. It had been observed that some parishioners that were in charge of particular functions at the church facilities, and church clients, were not familiar with how to use some of the devices located at their entertainment center (Media Center). This put a hindrance in the success of some social functions and official church business (i.e. setting up for presentations), particularly when their IT members were not available. It was after this discovery that the client officially became the local GOC. The local parish priest, who is a primary stakeholder, mandated the instructional package for the Media Center project, and asked for a “Purpose Statement,” or Project Charter, to be submitted to the Parish council in order to get approval to move forward with this project (See Appendix L). A number of members from this parish had assisted with various aspects of this project (see Appendix A).

As a result, it was thought that a needs assessment, gap, learner and context analysis would be conducted to complete the front end analysis. The methods used included but were not limited to observation, interviews, surveys, and online research. A Subject Matter Expert (SME) was also recruited and the content was analyzed. Project management procedures were also implemented, and they included but were not limited to developing risk management and communication plans. The SME had asked that the product address the instructional needs of clients of the GOC. This would be where Computer Based Training (CBT) embedded online would be most valuable.

INSTRUCTIONAL DESIGN APPROACH

The Dick & Carey Model of Instructional Design (see Figure 1) will be used for this project.

This ISD model “...is a systematic process in which every component is crucial to successful learning. Components such as the instructor, learners, materials, instructional activities, delivery system, and learning and performance environments interact with each other and work together to bring about the desired student learning outcomes” (Dick, Carey & Carey, p 1).

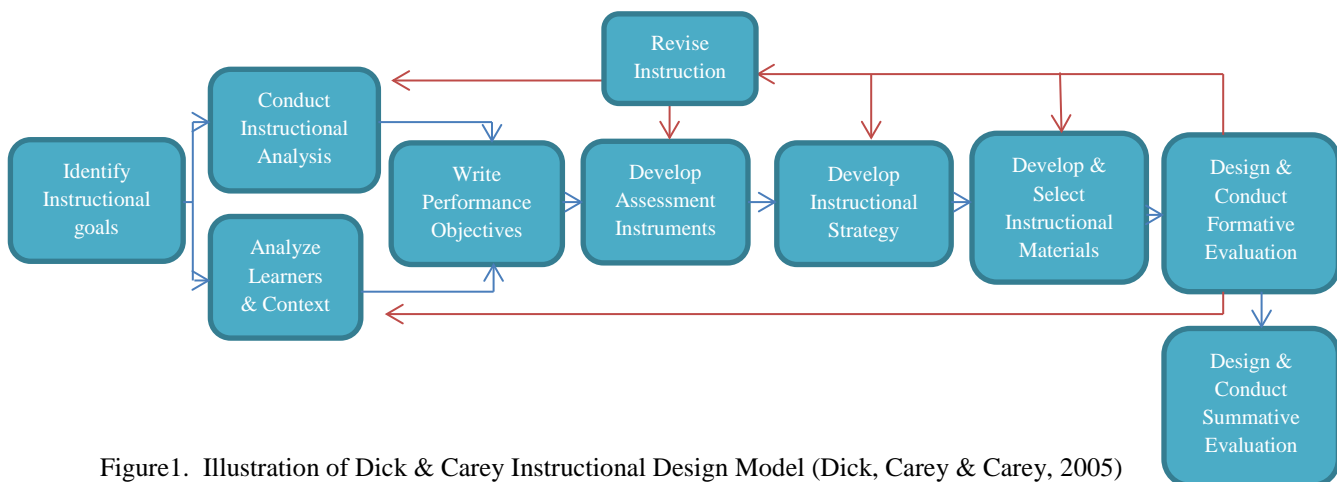


Figure1. Illustration of Dick & Carey Instructional Design Model (Dick, Carey & Carey, 2005)

FRONT END ANALYSIS

A combination of observation, interviews, and surveys were performed to evaluate what the organizational needs were. It was thereby discovered that Parish IT cannot always be available to the GOC, and this can sometimes become a problem in certain situations for members that need the Media Center facilities, but are not completely familiar with how to use it. Clients of the GOC that rent the banquet hall would have need of an instructional package that to that end as well, and that would make renting the hall to begin with more marketable. It should be noted that the raising of revenue is fundamental to the ability for the GOC to provide more services to the community, and even remain in operation for the duration.

The use of this equipment is also aligned with the fulfillment of some of the Mission and Vision Statements by extension, particularly "...to loving service of... mankind," and the Vision Statement in its entirety (see Appendix P). Not all GOC members are familiar with using Media Center, and this becomes relevant to the effectiveness, or even success, of some church activities. Equipment is used for official business and social functions, so instruction provides capability to complete some of the related tasks. This would mean that all involved may lose out on something that everyone could benefit from.

Observations

Observation was performed in natural settings without the awareness of those being observed in order to avoid disrupting normal routines, thereby adversely affecting the quality of data gathered. Observations of a variety of different GOA parishes were made through the years. The parish communities observed include but are not limited to locations in North Carolina, South Carolina, Maryland, New Jersey, Michigan, Ohio, California, Massachusetts, and Florida.

The results of these observations revealed that there were instructional needs that were needed in various parishes throughout the nation. These needs included a training program for

Sunday school and Greek School teachers, a self-directed instructional package on Biblical/Liturgical Greek and/or training on teaching such a course, and an instructional program on Orthodox Christian worship practices and their historical context (see Appendix E). The final observed need that became the most significant to this project was for an instructional package on how to use equipment located at and associated with the entertainment center located in the local church's banquet hall.

Interviews

Interviews with parish members, and other members from the surrounding community, had revealed that a need to have instruction on understanding and using the Liturgical/Biblical Greek language would be highly desired. Within the GOA community, this would help to mitigate issues with language barriers when it came to certain worship services or the parts within them. It would also help some with their personal pursuit in discovering historical truths through personal exploration in original texts, and that was a common sentiment within and without the GOA community.

Similar findings held true when it came to worship practices. Some felt that a uniformity in worship would help alleviate anxiety when visiting other parishes, or with not being distracted while worshipping when visitors to the local community participated in services. A deeper understanding of the faith and its practices was desired because some felt that it would improve their relationship with the faith. Converts, catechumens, and those just curious about Orthodoxy would also benefit from such instruction.

Interviews with parish ministry and Parish Council (PC) leaders revealed that the findings above remained constant. Some voiced concerns however in the protocol to approaching such a method to becoming familiarized with the faith. They focused on the complex procedural issues

that would hinder such a project's progress, or if it would even get approved to begin with from higher levels of authority on two grounds: 1) that it would result in a systemic change that might get deemed as unnecessary, and 2) that it might turn into a movement that becomes counterproductive by introducing new conflict instead of alleviating existing ones. Last but not least, many leaders expressed delight with having an instructional package on the use of the Media Center and felt that would be a good option.

Interviews with the local parish priest revealed that all the above may be true, but that a more focused objective on improving the current catechism process found within the GOA may be more fruitful. He echoed benefits for the first two options described above, but also concurred with the possible pitfalls associated with them. After over two months of waiting for an approval from the PC which, was required in order to proceed with any of the options, it was decided in a third interview that a Top Down approach would be best and that mandating the instructional package for the Media Center would better serve needs.

Surveys and Questionnaires

In order to gather data from a good population sample that represented those within and without the GOA community, surveys and questionnaires were administered to a number of respondents through social media, email, and focus groups (Parish Council meetings), all of which yielded 29 total respondents (2 for the questionnaire, 23 for initial surveys, and 4 from focus group for final survey). In order to discover what is in greater need, but not introduce researcher bias, anonymous methods with non-leading and open-ended questions were utilized for the Needs Analysis. As the options narrowed, research tools became more pointed and quantitative.

Needs Analysis

A learner analysis was conducted using 10 members from the GOC that were consisted of the Parish Council focus group and other random members that appeared at functions other than Parish Council meetings. Permission was not granted to use members outside of the GOC by the PC for a more random population. Data was kept mostly quantitative in order to gather more clear and specific results. The instrumentation was evaluated with the assistance of the team editor who is a retired Instructional Designer (ID) that is very familiar with this type of research. Further evaluation came with the assistance of a GOC IT member, the Parish Priest, Parish Council president, and the GOC Administrative Assistant.

Learner and Context Analysis

The client, St. Nicholas GOC, is comprised of a church building with banquet hall facilities and members that dedicate their spare time to varying degrees. The facilities also include classrooms that are used for various functions throughout each week. Located within the banquet hall is the Media Center that contains all the technological equipment that this instructional project is addressing (see Appendix D). The Hellenic Center and other GOC facilities have their own security measures already installed and in place. The banquet hall in general is the site of many various functions that include organizational meetings and seminars. Because of the limited time available and nature of some of the community members, coupled with the convenience of the location of the Media Center, the banquet hall would serve as the ideal site for the instruction to take place.

The learners have a broad spectrum of age, ethnicity, and learning considerations, but the most active members have many characteristics in common (see Appendix E). The majority of GOC members are middle-aged adults who have careers, family obligations, and hold existing volunteer positions that take up much of their free time remaining. For those reasons, it is not

always effective to arrange group meetings or seminars and expect to be certain that every member will attend. Approximately half of the members have some varying degree of a Greek or other immigrant background, which would generally constitute a consideration for language barriers. In this case however, it should be noted that 100% of those that responded to the survey revealed that they are fluent in the English language.

Needs Assessment

Instructional goal and solution are provided in the section located immediately after this one.

Actual Status

The Media Center, which is an entertainment center that is located in a banquet hall, called the Hellenic Center, has a number of technological devices (see Appendix D). Some community members have struggled using some of those devices without assistance. This has caused performance problems with preparing for some functions that cater to the community. According to the SME, approximately 30% of people are able to use some of the equipment to perform tasks independently. The survey results from the Learner Analysis are fairly consistent with this assessment (See Appendix E). There is some equipment already available and connected at the Media Center, but there are other devices that community members would have to provide for themselves, depending on the function and its required tasks (see Appendix C).

Optimal Status

The SME prefers to see 97% of the community that need to use the equipment at the Media Center do so without further assistance, with exception to those items where the learner is specifically directed to ask for further assistance. He would like to see community members

become able to use the various devices, switch back and forth from those devices, and connect external devices into available ports without depending on the presence of an Technology Ministry team member. There are certain items that he prefers be addressed with the presence of a Technology Ministry member, and there are also some additional items (such as the Isson Machine, microphone stand, etc.) that are beyond the scope of this capstone project.

Resulting Needs

The SME is seeking a marginal performance improvement, where most of the GOC community will be familiar with all of the devices at the Media Center, unless otherwise directed. Those community members will need to learn what equipment is available, how to access that equipment (that is, how to switch back and forth from the correct “input”), how to connect pieces of technology that are not already connected, how to adjust screen resolution from laptop for presentations, and/or how to seek further assistance if needed and as directed. There are some items, such as personal external devices, that are the responsibility of the end user to provide themselves if needed (see Appendix C).

INSTRUCTIONAL GOALS

Goal Analysis

The instructional goal is for GOC community members and clients to be able to use the devices located at the Media Center without further assistance from IT volunteers unless otherwise directed. These include:

- Choosing appropriate electronic device for desired function
- Choose corresponding “Input” from TV menu using remote
- Connect external personal devices to available ports if necessary
- Select correct audio output and adjust volume levels as desired

-
- Seek further assistance as directed or if necessary

“When it comes to how much to include in one step of the task analysis (see Appendix H), particularly when teaching an “older and more proficient learner,” smaller steps can be “combined into larger steps” (Dick & Carey, pg. 45). The GOC members will have access to instruction as needed, so that they will be able to choose and operate equipment that is available to them at the Media Center, or other personal devices that can be connected with the TV, only seeking further instruction if required.

Proposed Solution

There will be a dual delivery system used in addressing the needs of the GOC. An instructional package that will contain two deliverables will be utilized. There will be an instructional website that will host a computer based training type of instructional package. In addition, a print Job Aid will also be provided.

The elaboration theory is ideal when it comes to training procedural steps, especially with tasks that are interrelated, but not necessarily focused on one specific topic (like a TV or a VCR, vs. both), and CBI or online instruction. The instructional website will allow more tech-savvy end users to access instruction anytime, and from anywhere, but especially addresses the instructional needs of GOC clients from outside the community. The Job Aid will be made available at the Media Center in order to address this need, and to activate knowledge, but it will also redirect learners to visit the Instructional Website in order to receive more elaborate information (see Appendix G) as needed. All of these options will allow the learner to pick and choose what they want to learn, making the instruction less time to participate in and will boost learner motivation all around.

Design Phase

Task Analysis


The Task Analysis has been designed with both Charles Regeluth's and Robert Gagne's approaches to hierarchal organization in mind (see Appendix H). This flowchart shows a relationship between terminal and subordinate objectives (superordinate and subordinate steps), that is to say what the learner will be able to do and what steps leading up to that will need to be learned (Dick, Carey & Carey, 2005). The design was originally based on an earlier model of the Elaboration Theory (see Appendix G), but as the Dick & Carey model adopted into the generic ADDIE originally used, the instructional design approach became more refined.





Learning Objectives

These objectives (see Appendix K) will be used to guide the organization of a job aid and website during the development of an outline for the manual and a storyboard for the website. These learning objectives would be used to create the assessment items, which would in turn be used to evaluate the efficacy of the instructional product. If the evaluands performed marginally better, then it would be known that the end user can achieve these objectives through the instruction provided. If not, then further edits and evaluation would be required to revise the instructional product, which could include going back to tooling the assessment instruments to ensure that the instrumentation is effective (Dick, Carey & Carey, 2005).

Elaboration Theory Application

Applying the Elaboration Theory to this project started with the task analysis. From there, the storyboards and outlines were formulated. There is a specific breakdown of the theory components, their application, and some examples table below (see Figure 2).

<p>3. Within-lesson Sequencing- According to organizing structure initially chosen, organizes content in the appropriate prescribed manner.</p>	<p>In this case, the procedural domain or organizing structure was chosen, and the content was presented it would be performed.</p>	<div></div> <p>Hints & Tips:</p> <p>In order to be able to view content from a specific device that is located at the TV Center, you must:</p> <ul style="list-style-type: none">• Before starting, remember to turn on the TV set and the device of your choice... <ol style="list-style-type: none">1. press the INPUT button on the TV remote2. press the up or down arrow to select the correct input number that corresponds to the device that you would like to use from the table below3. press ENTER button after the correct input has been highlighted <p>The content from the device should now be displayed on the TV set. Give it a moment, because some devices take longer to load up.</p>																		
<p>4. Summarizers- include content reviews, which can be done at the lesson or unit levels.</p>	<p>The learner is able to apply their learning as they go, choosing to do so whenever they feel comfortable with the content, or when they are prompted.</p>	<p>Try It Out!</p> <p>To get an idea of how broad a range such information is available, go to GOOGLE.com and type the "How to make a peanut butter sandwich" in the search field, and then press ENTER. How many tutorials available? Are there any available in YouTube?</p>																		
<p>5. Synthesizers- Tools such as diagrams can be used to help the learner assimilate the meaning of the lesson as a whole.</p>	<p>Lists and charts are used throughout to assist the learner in establishing such links to existing knowledge, or help assist the mental task of organizing content.</p>	<table><tr><th colspan="2">Table of INPUTS & Their Respective Devices or Ports</th></tr><tr><td>INPUT 1</td><td>(VCR) Video Cassette Player/Recorder</td></tr><tr><td>INPUT 2</td><td>DVD Player</td></tr><tr><td>INPUT 3</td><td>OPEN PORT: for RCA devices</td></tr><tr><td>INPUT 4</td><td>OPEN PORT (cable): VGA cable for PC & Mac devices (adaptors available)</td></tr><tr><td>INPUT 5</td><td>OPEN PORT: for HDMI devices (cable available)</td></tr><tr><td>INPUT 6</td><td>Please acquire further assistance for this available port</td></tr><tr><td>INPUT 7</td><td>Apple TV Device</td></tr><tr><td>INPUT 8</td><td>Cable TV Box</td></tr></table> <p>#For "OPEN PORTS" please visit the Connecting Personal Devices webpage for further details.</p>	Table of INPUTS & Their Respective Devices or Ports		INPUT 1	(VCR) Video Cassette Player/Recorder	INPUT 2	DVD Player	INPUT 3	OPEN PORT: for RCA devices	INPUT 4	OPEN PORT (cable): VGA cable for PC & Mac devices (adaptors available)	INPUT 5	OPEN PORT: for HDMI devices (cable available)	INPUT 6	Please acquire further assistance for this available port	INPUT 7	Apple TV Device	INPUT 8	Cable TV Box
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<p>6. Analogies- These relate the content to learner's prior knowledge. They can be "weak" and more differences to the content than stronger analogies would.</p>	<p>Scaffolding is used, starting with a segment of instruction that the learner is likely already familiar with, such as choosing a function to perform, and then gradually building up to something that they are not, like connecting external devices.</p>	<p>Demonstrations:</p> <div> <div> <p>Connecting RCA Devices</p>  </div> <div> <p>Connecting VGA Devices</p>  </div> <div> <p>Connecting HDMI Devices</p>  </div> </div>
<p>7. Cognitive Strategy Activators- Using cues to trigger cognitive strategies can be "embedded" or "detached." Items such as pictures or diagrams can be used or simply providing instructions to create mental maps.</p>	<p>In this case, both were used. Some images include text instruction, which may fall under both categories. Other pictures provide implied instructions, such as where some items can be located. Learners may also be asked to mentally work through a problem.</p>	<p>Remote Controls</p>  <p>Hints & Tips:</p> <p>This webpage is designed to familiarize you with the remote controls available, which devices that they belong to, and introduces you to "AirPlay." Apple TV can be used remotely with your personal Mac mobile devices such as iPad and iPhone 4 or later through the software package called AirPlay.</p> <p>The remote controls can be found on the smaller cabinet to the right of the entertainment center. Please put the remote controls back after using them.</p> <p>TIP: If remote control is not working, remember to point it directly to its corresponding device when using it, and always check the batteries if it is still not responding well or at all.</p>

8. Learner Control-
Learners are encouraged to exercise control over content and instructional strategy.

In this case, the learner is given the freedom to pick and choose what content they would like to learn about. In addition, they are given the option to learn directly from the content provided, do further research online for content that may not be available, or simply use the printed job aid for reference purposes for those learners that are more well versed with the use of technological devices.



Applied Multimedia and Design Principles

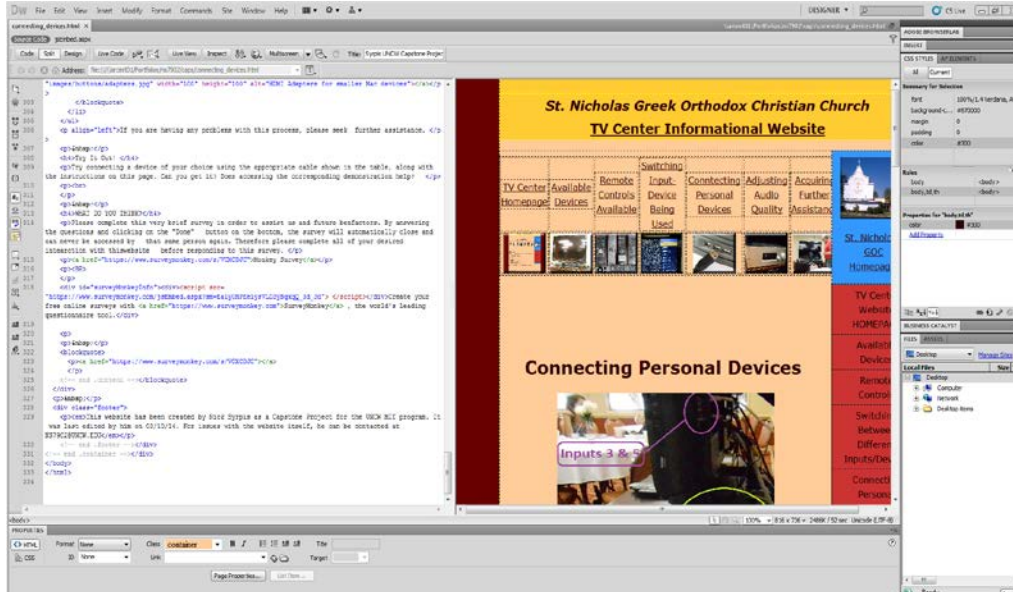
There were a number of multimedia and design principles that were applied to the instructional product. Among them were Dual Coding theory, Coherence, Signaling, Spatial Contiguity, Temporal Contiguity, and Segmenting. The Dual Coding Theory deals with the efficacy of combination applications of verbal and nonverbal representations in instruction

(Clark, 1991). In addition, Proximity, Alignment, Repetition, and Contrast design principles (Williams, 2008) were applied. The color scheme used offered a personalization to the product, where colors that are most frequently used in Orthodox Christian iconography were applied; all of which offer a traditional meaning, and much positive feedback was received from that. The Multimedia and Design Principles (Mayer, 2009) table that is located in the Appendices provides detailed information on the application of the other multimedia principles that are listed above (see Appendix AA).

Development Phase

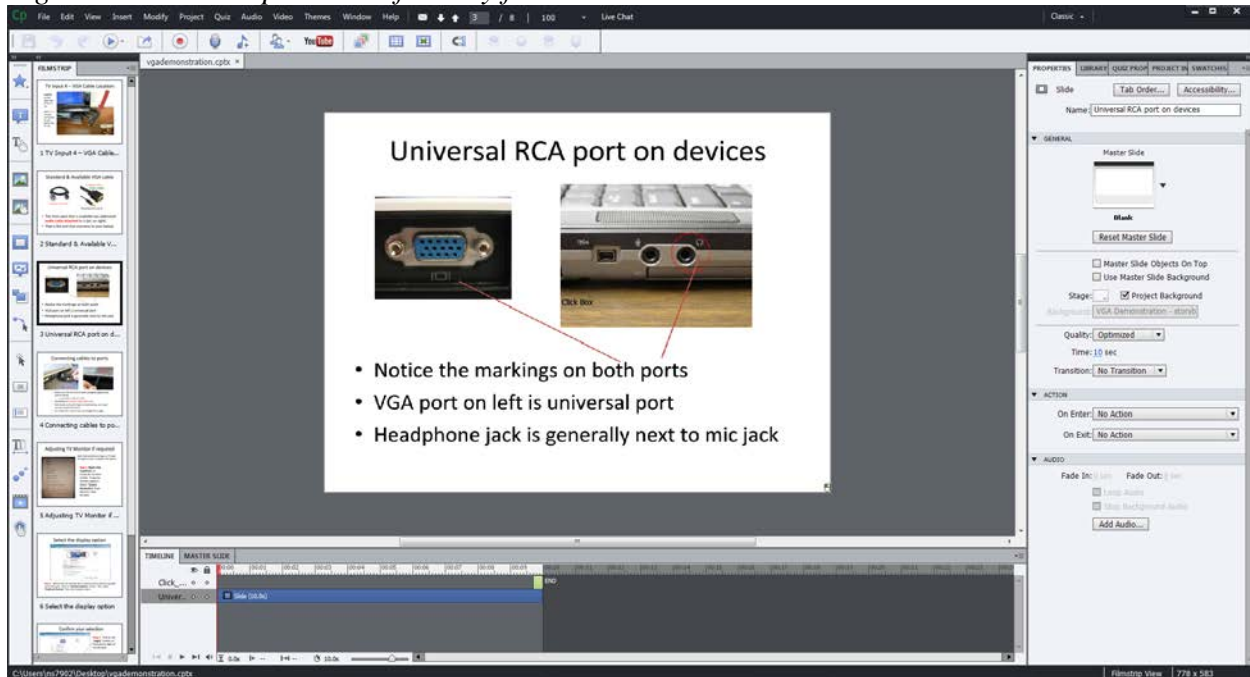
When it came to development, three phases were implemented in conjunction with each other. The first came to developing the website itself using Adobe Dreamweaver; using content from MS PowerPoint storyboards to populate the website (see **Appendix Y**). This software can publish in HTML and has the convenient feature of having a designer's interface, a programmer's interface, or a split screen that displays both simultaneously (see Figure 3). This makes designing websites using this software much easier to edit.

Figure 3: User friendly features made available in Adobe Dreamweaver



To create the Demonstration instructional segments or ET episodes, Adobe Captivate was used because of its MS PowerPoint like arrangement and its ability to directly upload those presentations (see Appendix W); coupled with the fact that it also publishes in HTML5 as well. This software also operates as screen-capture and video editing software; giving the designer access to many more development tools to make the product much more interactive (see Figure 4). Last of all, beta testing or formative evaluation took place as each new type of aspect or product was introduced into the instruction to help ensure that there would be no issues with usability down the road (See Appendix X).

Figure 4: Adobe Captivate user friendly features



Evaluation Process

The evaluation process was conducted with two types of focus groups in mind, and therefore conducted in two phases. The first sample population represented clients of St. Nicholas Greek Orthodox Church (GOC), and the second group represented members of the

GOC community. Sample population one included members all three levels of adult stages of life (Younger Adult, Middle Aged Adult, and Older Adult), while Sample population two focused The data collected reflects a marginal improvement in skills and knowledge in both groups. All participants displayed two to three times improvement in total performance in using the facilities at the Media Center (see Appendix R). In addition, with the on site evaluation that included the GOC members, it was observed that peer learning did much in mitigating performance anxiety with regards to using technological devices that are unfamiliar to the participants. The table below reflects the results from the data that was gathered (see Figure 5).

To add to that, a maintenance plan for ongoing evaluation and adjustment consists of an embedded survey on the instructional website which is very brief, yet thorough, in order to elicit more participant response. It consists of two questions; “How effective was this instruction” and “How can this instruction be improved?” (see Appendix V). In addition, usability was tested to help ensure that the delivery system would work effectively on a variety of personal devices (see Appendix X), and this process was conducted until all technical issues were addressed.

Figure 5: Formative Evaluation data results

On Site Testing			
Evaluated	Pre-Test	Post Test	Notes
Par. 1a	31%	62%	Shut down (hostile) from the start because product was not what was expected (web-based and not print), and was consequently avoidant with using website. Chose to stop evaluation before completing posttest.
Par. 2a (sg)	62%	100%	Participant was from outside of GOC community and was therefore asked to familiarize himself with Media Center to better play the role of parishioner during testing.
Par. 3a (sg)	31%	92%	Completely intimidated by technology and was disappointed in delivery system (computer based instead of print), and was therefore reluctant to engage instruction.
Mean	41	85	
<i>Note – Points out of 100</i>			

Online Testing			
Evaluand	Pre-Test	Post Test	Notes
Par. 1b	23%	62%	Wanted clarity on where to find specific item on website (navigation was not 100% effective).
Par. 2b (sg)	31%	62%	Evaluand has mental disabilities that include lower cognitive ability, memory impairment and partial loss of vision.
Par. 3b (sg)	0%	62%	Evaluand has physical impairment that does not allow her to stay in one spot for extended periods of time, displayed severe anxiety, and had emotional distress over personal circumstances.
Mean	18	62	
<i>Note – Points out of 100</i>			

The more interactive portion of the module (see Appendix W) was created using Adobe Captivate. This is a more popular ID authoring tool that features the ability to publish its products in HTML5. This is crucial because of how current Apple operating system (iOS) or Mac devices conflict with Adobe Flash files (SWF), and publishing online content in HTML5 helps to mitigate this issue. While testing the product on various mobile devices it was discovered that the embedded survey would not appear at all on some mobile devices (see Appendix X). This issue was alleviated by including a direct link to the survey housed in Survey Monkey (see Appendix V). After the necessary adjustments were made, the product was tested again to ensure that it was working effectively.

During interviews with the evaluands after completing the formative evaluation, several things were disclosed that are of value for the improvement of this module. The first thing discussed was their disappointment that print instruction was not the primary delivery system for this module. Participants of a survey taken during the front end analysis had expressed their desire for such instruction over other options (see Appendix E), and this expectation may have led to that disappointment. They were debriefed on the process of the UNCW student capstone project process, and were assured that this delivery system was primarily targeting a specific

demographic; for those that prefer digital delivery systems, and for the off-site GOC clients that would not otherwise have access to such information.

During the group evaluations, both observation and interviews revealed that peer learning was being naturally adopted during the instructional phase of testing. Those that were more tech savvy served a facilitator type role, and in both cases (online and on site) the older participant was guided by the younger one. This approach has been observed in a local Bill Gates school, the Anne Mosely Learning Center, where students were encouraged to teach each other while engaging in CBI.

Conclusion

Overview

An instructional need in the local GOC was revealed through lengthy and thorough process. A combination of observation, interview and survey techniques was used to gather data and investigate the possibility of instruction addressing the needs this potential client. A combination of CBI and print job aid would provide a solution for the instructional need discovered, and test piloting would find marginal success with the instruction provided, as well opportunity for continued improvement on its efficacy. The project manager and author of this report will continue to work with the GOC client in kind to address some needs that were outside the scope of this project.

Recommendations

It would be my recommendation that the client undertake two strategies to improve on what has been established for them in terms of a computer based instructional package for using technological devices that are found in their facilities. The first would be to follow up with and

build on the evaluation process as other instructional items are added (such as the availability and use of the microphone in the banquet hall). At the end of the year (maybe in early November, right before many functions take place at the GOC), I would implement a summative evaluation to analyze the value of such a program. The second recommendation would be to include a third element for instructional delivery by offering a seminar designed to create a group of early adopters that could serve as facilitator type roles for a peer learning process, and with the assistance of the website and/or job aid.

Edits to the computer based instruction should include adjusting the navigation by doing several things. The navigation box on the right should be relocated to a more universally anticipated position of top left. In addition, the separate area where elaboration on instruction for more advanced features of the available technological devices, or instructional manuals, should be relocated as well. The navigational buttons on the top of the Devices Available page should be deleted, and the links to the individual device subpages should be provided in a separate spot, with some spacing below the standard navigation box that will now be located on the top left. In addition, the text should be reduced and placed in labeled accordions so that they appear less daunting. Including a voice narration button on each page as an option or alternative would provide more effective instruction for audio learners or the visually impaired. Include more demonstrations, one for nearly every page, as expressly desired by the evaluands. Lastly, a translation feature that is provided by online freeware should be included on each page as well to address the needs of the foreign language speaking GOC members and clients.

Reflection

I learned much more than I anticipated during the Capstone Project process. I was expecting this to be a process of proving what I have learned while in the program, instead of a

process of learning new things; so I gained much more from it than was expected. For example, I was particularly challenged while going through the evaluation process and dealing with some participants that may have been disappointed when they felt that their previous expectations were not met. Because of what I had previously learned in the MIT program, particularly through the Peer Learning type of group projects, I was better equipped to deal with this type of adversity, and was able to respond to their aggression in a very professional manner; mitigating any further issues in the process. This is something that I am very grateful for and, in addition, it all goes to show that the learning process never ends.

Appendices

Appendix A

Project Team Members

Project Director(s)	Parish Priest (“PP”)
Project Manager	Nick Syrpis
Subject Matter Expert (“SME”)	“Parish IT”
Information Technologist (IT)	Nick Syrpis
Editors & Evaluands	PP, GOC Administrative Assistant (“AA”), Parish Council President (“PCP”), GOC Parishioner/Retired Instructional Designer (“Par 1”), Modern Greek editor, and SME
Note: Team members as it would be in professional application of ID project	

Appendix B

PROJECT STAKEHOLDERS

Primary	Secondary	Tertiary
Nick Syrpis	Parish Council Leaders and Members	GOC parishioners
Capstone Project Panel Members	GOC Ministry Leaders and Members	Guests of GOC and its website
Parish Priest	Business associates of GOC	
SME		
Parish Council President		
Note: Lists only essential stakeholders of each category		

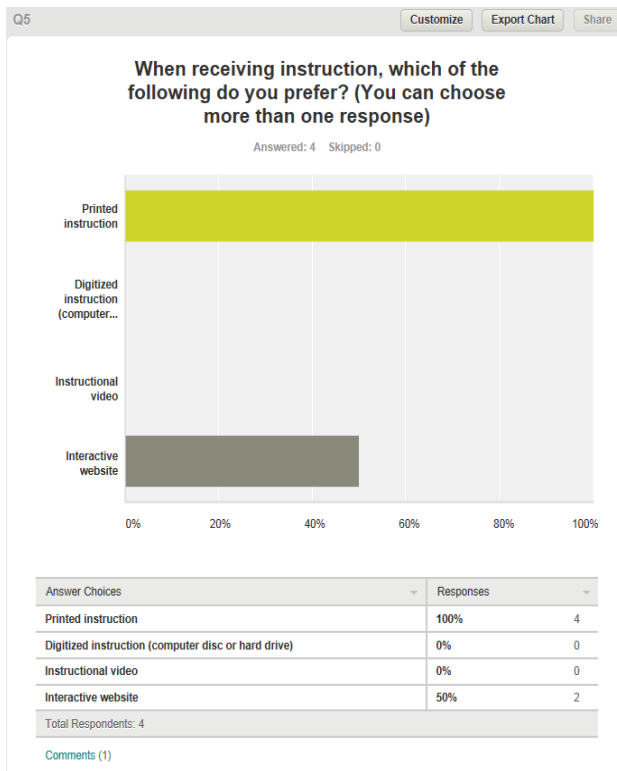
Appendix C – Equipment Analysis Table 2

Not Available at Media Center

Equipment Not Available	Description/Extra Features
iPads, iPods, & Macbooks	And their corresponding connection cables
Cellphones	iPhone (with IOS), Android, or other
Video Cameras & other recording devices	with VGA or HDMI ports
Laptops	Parish Council, Mac, or other
Android Adapter	To connect directly to TV port/VGA cable
Note: List of personal external devices that can be used at Media Center’s available ports	

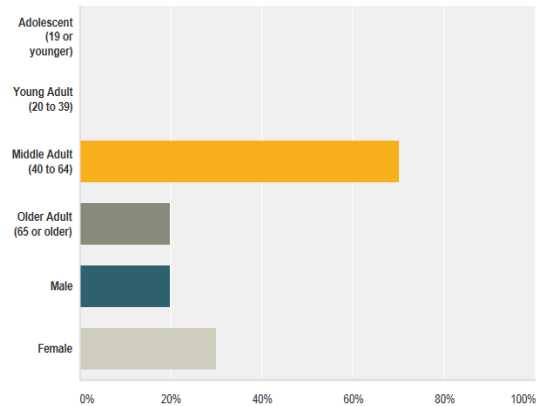
Appendix D – Equipment Analysis Table 1		
<i>Equipment Available at Media Center</i>		
Type	Model	Serial # & Description
Television	Sharp	LC-C6077UN
VCR	Admiral	JSJ 20433
DVD Player	Coby	DVD 657
Cable Box	Scientific Atlanta	Explorer 4250HDC
Apple TV	2 nd Generation	A1378
Receiver	Sony Digital Audio Control Center	STR-K790
Karaoke Machine	The Singing Machine	SMG-138
VGA Adapter	Mac	Mini display port to VGA
Speakers	Sony	SS-WP700: 5 speaker surround sound set with subwoofer
Internet Modem	CISCO	Linksys SE2800
Remote Controls (4)	<ol style="list-style-type: none"> 1. DVD player 2. Cable box 3. TV 4. Receiver 	<ol style="list-style-type: none"> 1. COBY R657 2. Time Warner UR5U-8700L-TWRW 3. SHARP LCDTV GA667WJSA 4. SONY AV SYSTEM RM-AAU013
Note: This is a list of devices that is available at Media Center		

Appendix E – Results and instrumentation from Learner Analysis survey



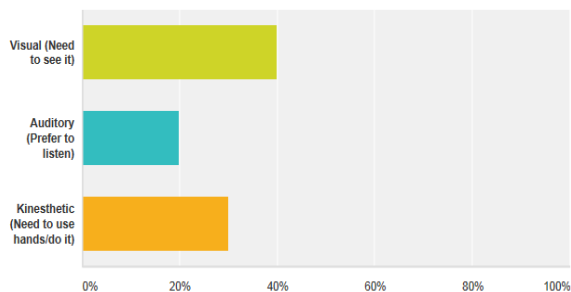
Under which age and gender category do you fall under? Please choose both an age group and gender.

Answered: 10 Skipped: 0



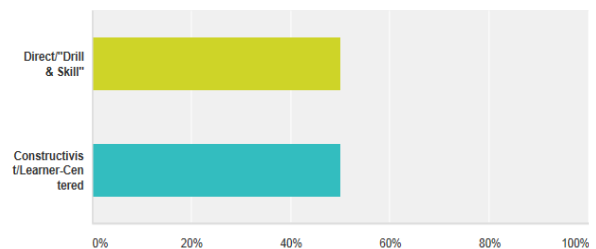
When learning new skills and knowledge, are you a visual, audio, and/or kinesthetic learner?

Answered: 10 Skipped: 0



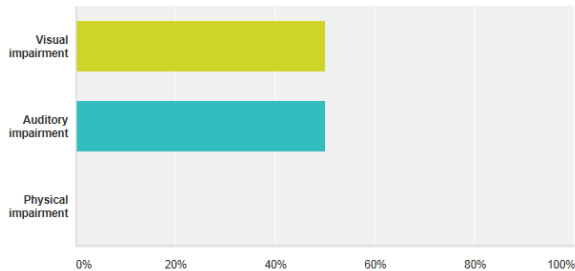
How do you prefer to have instruction presented to you; Direct "Drill & Skill" approach, or Constructivist/Learner-Centered approach? In other words, do you prefer to have classroom-like instruction dictated to you when learning new skills, or be provided with self-guided instruction and have more freedom to choose when and what is learned?

Answered: 10 Skipped: 0



Do you have exceptional learning considerations? If so, choose one from the list below and include any further assistance that may be required with reading print materials or acquiring knowledge from a website. If no, please skip this question.

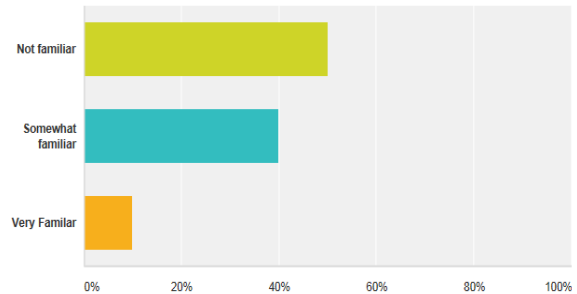
Answered: 2 Skipped: 8



Answer Choices	Responses
Visual impairment	50% 1
Auditory impairment	50% 1
Physical impairment	0% 0
Total	2

How familiar are you with the TV remote control "Input" options at the TV Center in the Hellenic Center?

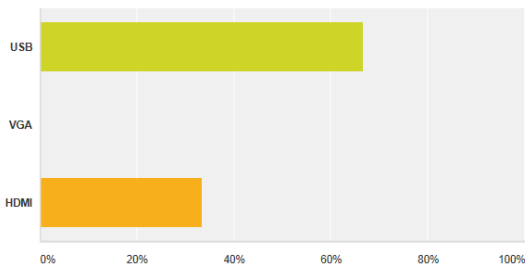
Answered: 10 Skipped: 0



Answer Choices	Responses
Not familiar	50% 5
Somewhat familiar	40% 4
Very familiar	10% 1
Total	10

Are you familiar with, both conceptually and physically, how to connect various cable/wires to their corresponding ports/jacks (i.e. USB, VGA, etc.)? In other words, are you familiar with how to connect your personal external device (i.e. laptop, iPhone, etc.) to the TV set? If not, which would you like to learn more about?

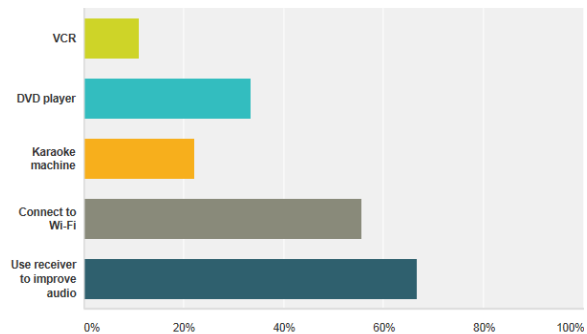
Answered: 3 Skipped: 7



Answer Choices	Responses
USB	66.67% 2
VGA	0% 0
HDMI	33.33% 1
Total	3

Are you already familiar with how to use the VCR, DVD player, Karaoke machine, and how to connect to Wi-Fi, and use the receiver to improve sound quality on the TV set? If not, would you like general instruction on how to do so, and which items would you like that instruction on?

Answered: 9 Skipped: 1



Answer Choices	Responses
VCR	11.11% 1
DVD player	33.33% 3
Karaoke machine	22.22% 2
Connect to Wi-Fi	55.56% 5
Use receiver to improve audio	66.67% 6

Appendix F – Comparison of Pedagogy and Andragogy as instructional approaches

Assumptions of Pedagogy and Andragogy

Exhibit 4 portrays how I see the difference in assumptions between the two models:

Exhibit 4

A COMPARISON OF THE ASSUMPTIONS OF PEDAGOGY AND ANDRAGOGY

Regarding:	Pedagogy	Andragogy
Concept of the learner	The role of the learner is, by definition, a dependent one. The teacher is expected by society to take full responsibility for determining what is to be learned, when it is to be learned, how it is to be learned, and if it has been learned.	It is a normal aspect of the process of maturation for a person to move from dependency toward increasing self-directedness, but at different rates for different people and in different dimensions of life. Teachers have a responsibility to encourage and nurture this movement. Adults have a deep psychological need to be generally self-directing, although they may be dependent in particular temporary situations.

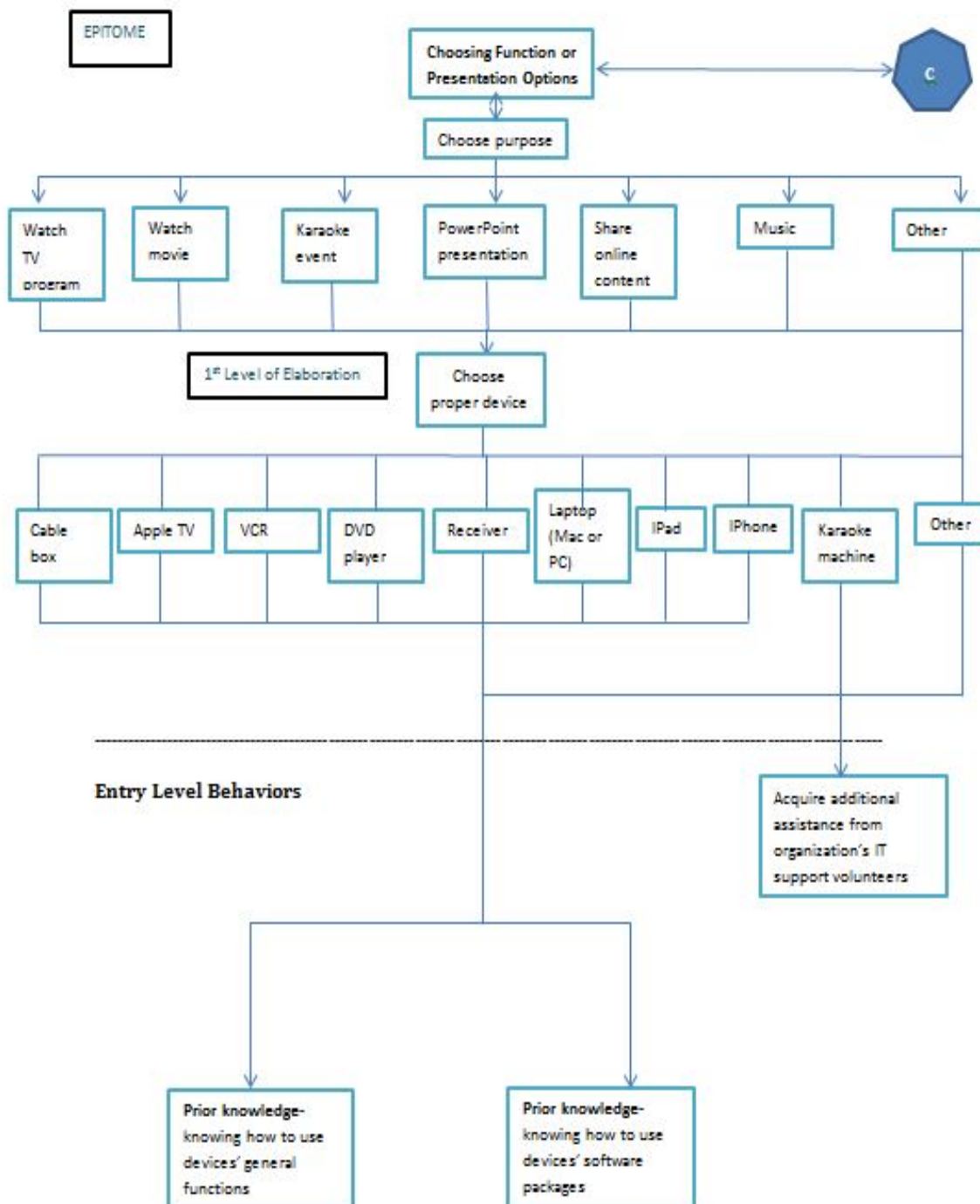
44 THE MODERN PRACTICE OF ADULT EDUCATION

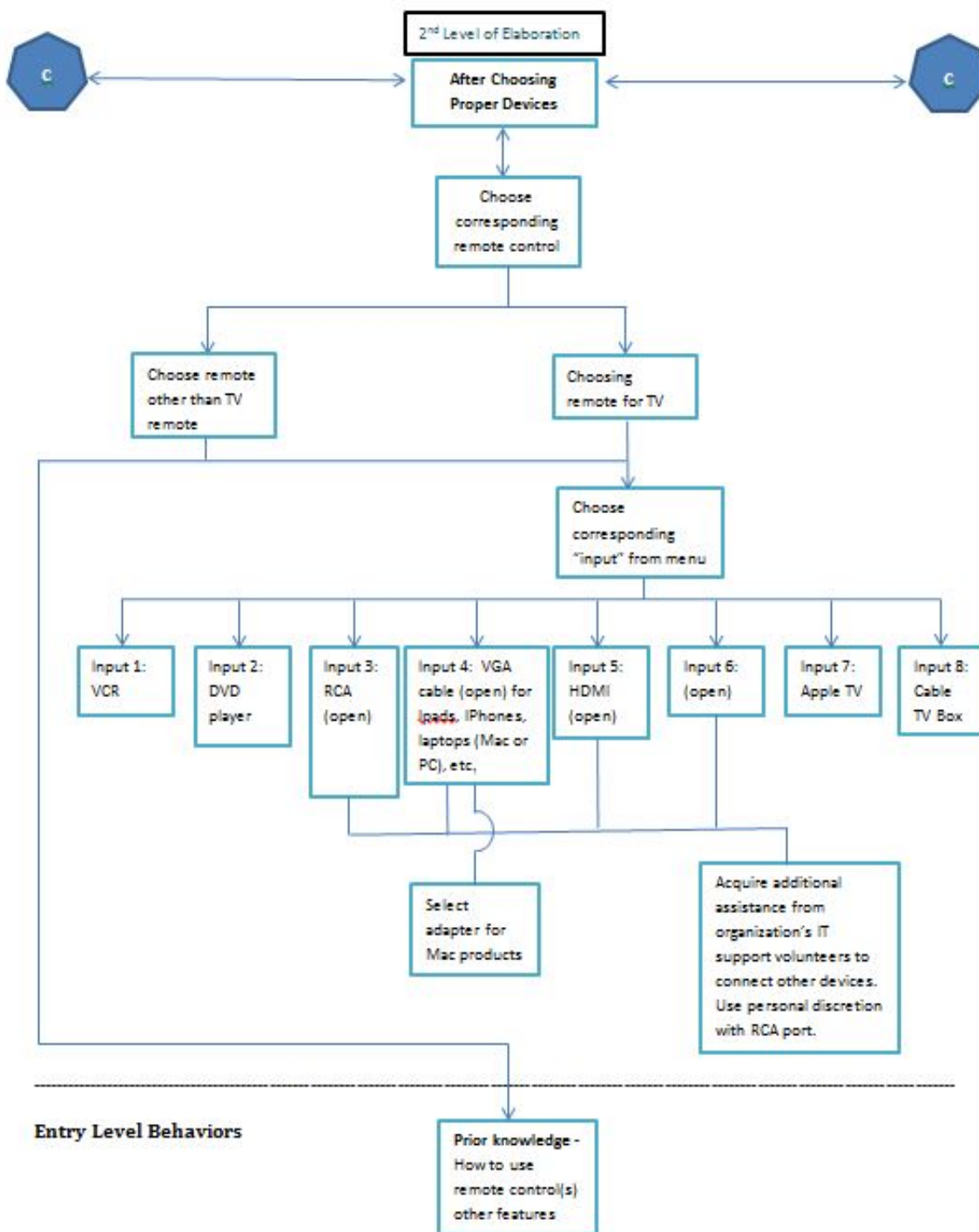
Regarding:	Pedagogy	Andragogy
Role of learners' experience	The experience learners bring to a learning situation is of little worth. It may be used as a starting point, but the experience from which learners will gain the most is that of the teacher, the textbook writer, the audiovisual aid producer, and other experts. Accordingly, the primary techniques in education are transmittal techniques—lecture, assigned reading, AV presentations.	As people grow and develop they accumulate an increasing reservoir of experience that becomes an increasingly rich resource for learning—for themselves and for others. Furthermore, people attach more meaning to learnings they gain from experience than those they acquire passively. Accordingly, the primary techniques in education are experiential techniques—laboratory experiments, discussion, problem-solving cases, simulation exercises, field experience, and the like.
Readiness to learn	People are ready to learn whatever society (especially the school) says they ought to learn, provided the pressures on them (like fear of failure) are great enough. Most people of the same age are ready to learn the same things. Therefore, learning should be organized into a fairly standardized curriculum, with a uniform step-by-step progression for all learners.	People become ready to learn something when they experience a need to learn it in order to cope more satisfyingly with real-life tasks or problems. The educator has a responsibility to create conditions and provide tools and procedures for helping learners discover their "needs to know." And learning programs should be organized around life-application categories and sequenced according to the learners' readiness to learn.
Orientation to learning	Learners see education as a process of acquiring subject-matter content, most of which they understand will be useful only at a later time in life. Accordingly, the curriculum should be organized into subject-matter units (e.g., courses) which follow the logic of the subject (e.g., from ancient to modern history, from simple to complex mathematics or science). People are subject-centered in their orientation to learning.	Learners see education as a process of developing increased competence to achieve their full potential in life. They want to be able to apply whatever knowledge and skill they gain today to living more effectively tomorrow. Accordingly, learning experiences should be organized around competency-development categories. People are performance-centered in their orientation to learning.

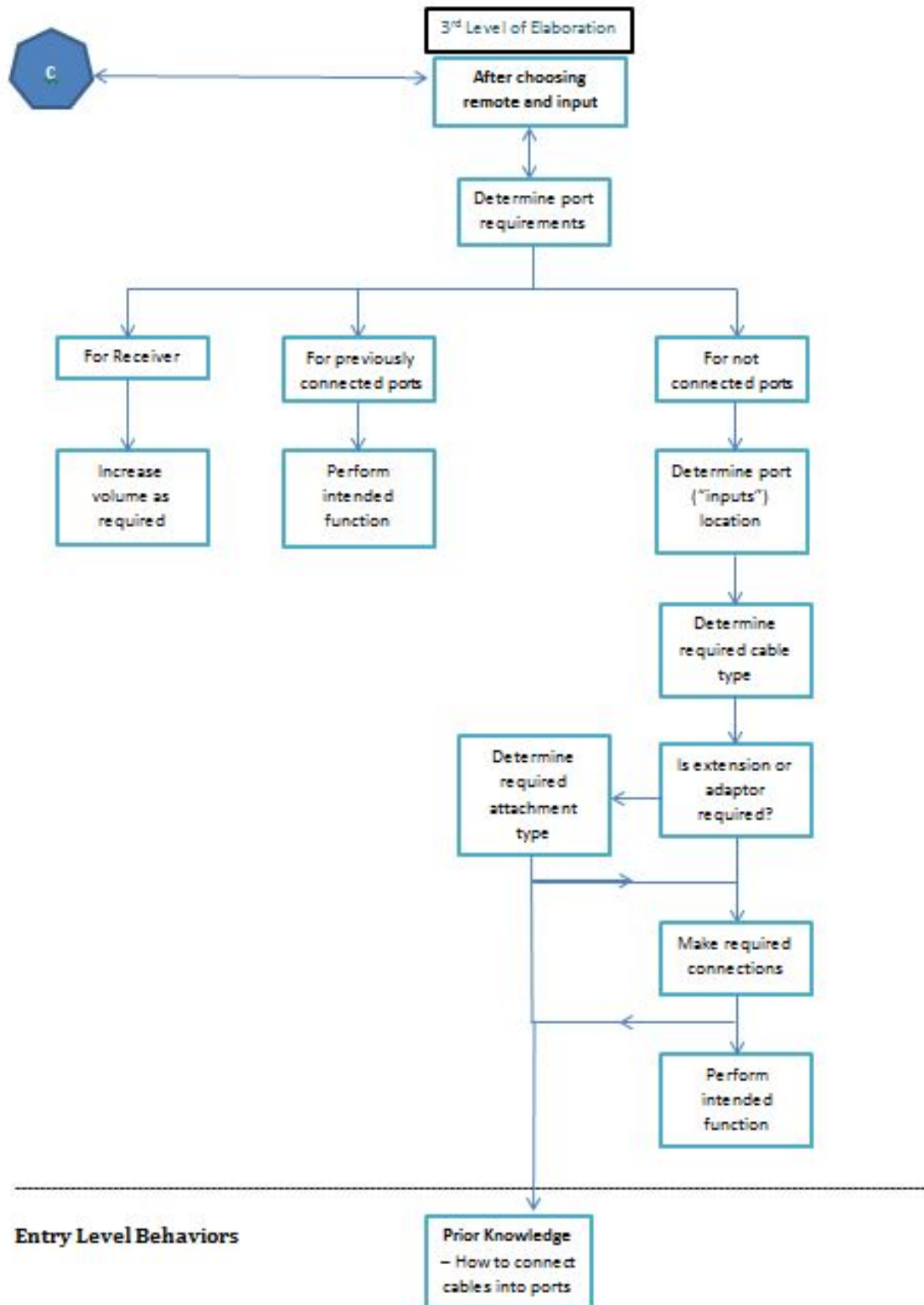
To summarize, andragogy is premised on at least these four crucial assumptions about the characteristics of learners that are different from the assumptions on which traditional pedagogy is premised. These assumptions are that as individuals mature:

- 1) their self-concept moves from one of being a dependent personality toward being a

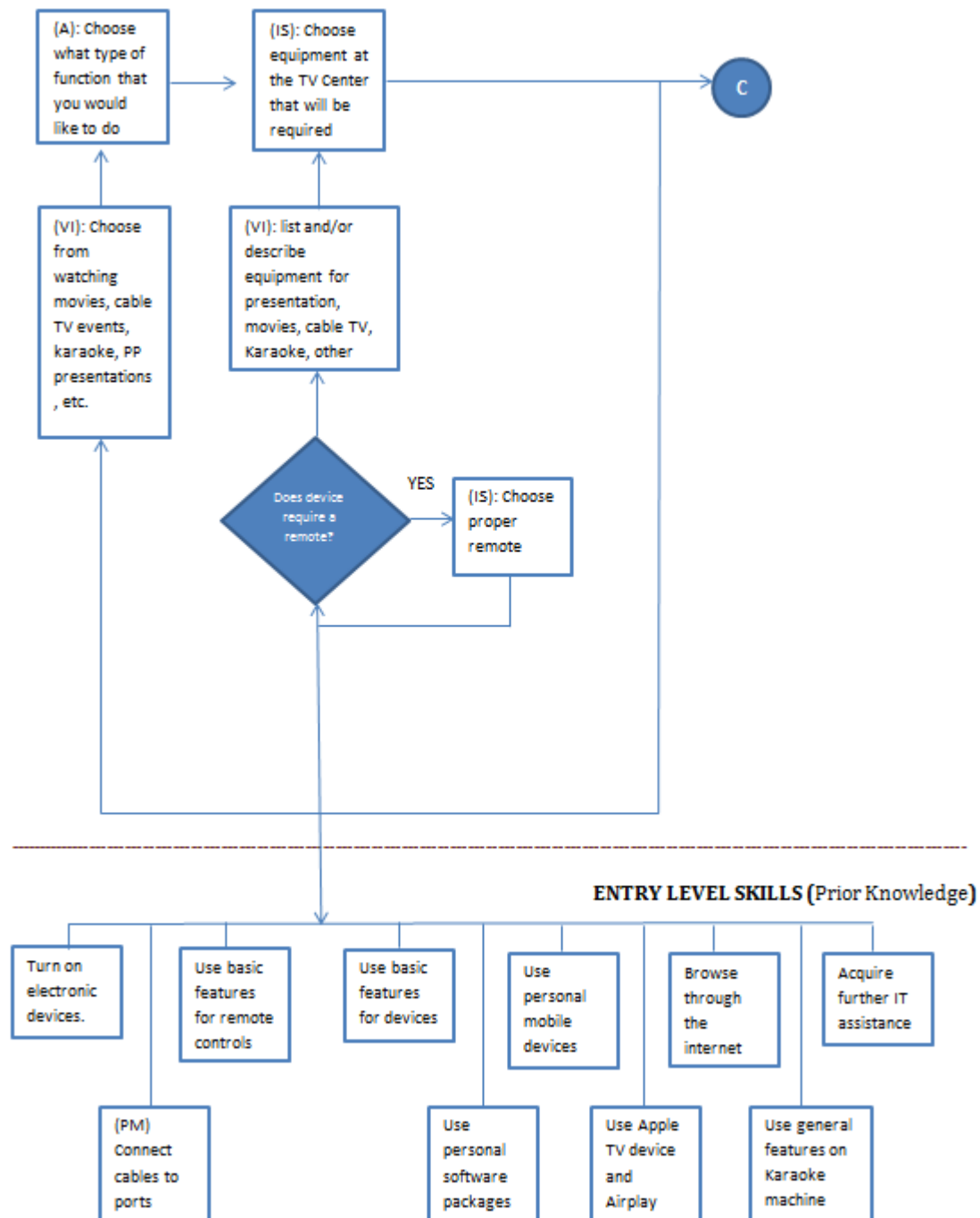
Appendix G – ET Flowchart – employed first but was later incorporated into Gagne type Task analysis (see Appendix H). It has been included to show progression of process.

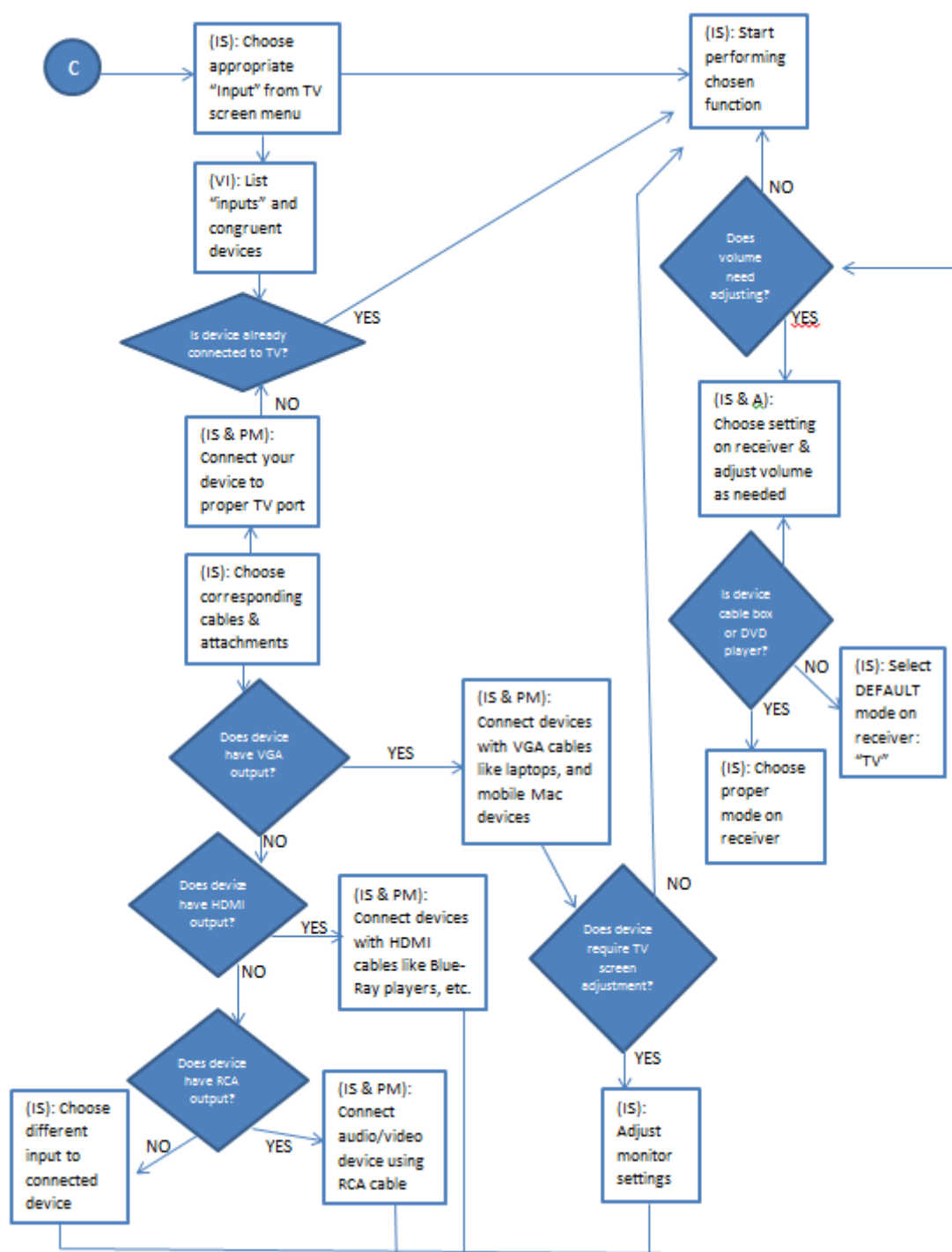




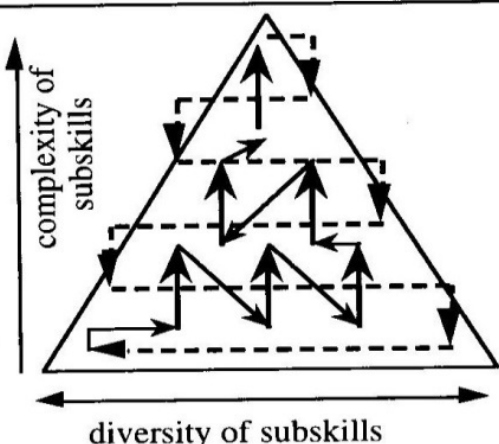
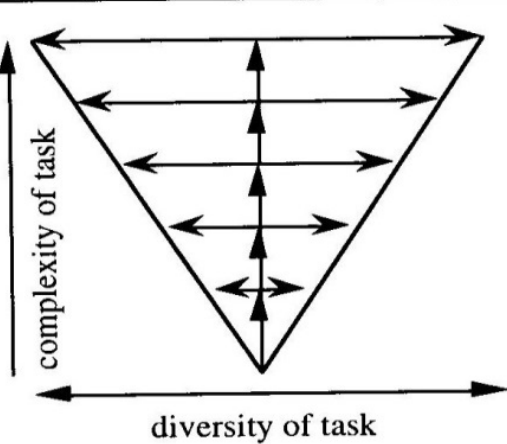


Appendix H – Task Analysis with Elaboration Theory incorporated





Appendix I – Fig. 18.5 Hierarchical approach and the SCM approach (from Reigeluth U Kim, 1993) [edited work]. From *Instructional-design theories and models, a new paradigm of instruction theory, volume II*. (p 443) by Reigeluth, C., 1999, Lawrence Erlbaum and Associates, Mahwah, NJ

	Hierarchical Task Analysis and Sequencing	Task Analysis and Sequencing with SCM
Conceptual map	 <p>complexity of subskills</p> <p>diversity of subskills</p> <p>Hierarchical Analysis ---></p> <p>Hierarchical Sequencing --></p>	 <p>complexity of task</p> <p>diversity of task</p> <p>Analysis and Sequencing with SCM --></p>
underlying logic	Part to whole/Simple to Complex (Subskills to main skills)	Simple to complex (simple task to complex task)
For Designer	Task analysis should be done prior to sequencing as separate task.	Task analysis and sequencing can be done simultaneously. - the prototype can be developed rapidly.
For Learner	Facilitates the learning of higher-order skills.	From the very first lesson, it provides 1) the flavor of the whole task, 2) a simple but applicable skill, and 3) enhanced motivation.
The hierarchical approach is necessary but not sufficient. It also introduces a very fragmentary approach.		

Appendix J – Fig. 18.1 Topical and spiral sequencing. (from Reigeluth U Kim, 1993) [edited work]. From *Instructional-design theories and models, a new paradigm of instruction theory, volume II.* (p 432) by Reigeluth, C., 1999, Lawrence Erlbaum and Associates, Mahwah, NJ

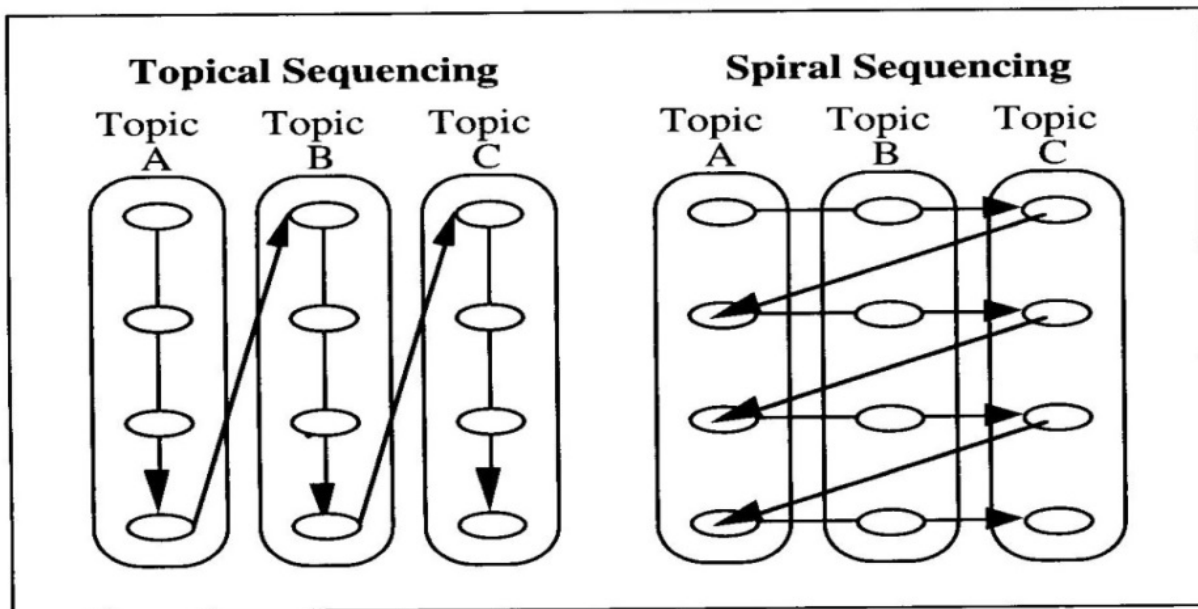
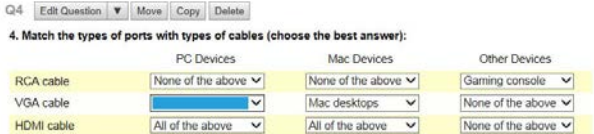


FIG. 18.1. Topical and spiral sequencing. (From Reigeluth & Kim, 1993)

Appendix K – List of learning objectives and corresponding test items

Learning Objectives	Test Items
1.0 GOC Adult learner will be able to choose and state the type of function that they want to perform, given equipment present at Media Center or list of functions, with 100% efficacy.	(1.0) Taking into consideration what is available at the Media Center and the list of devices, choose the function that you would like to perform.
1.1 GOC Adult learner will be able to list types of functions that they will be able to perform at the Media Center facilities given a list of functions with 100% accuracy.	(1.1) Taking into consideration what is available at the Media Center, list some functions that you would potentially like to perform here at a future date.
<p>2.0 GOC Adult learner will be able to choose the type of equipment that will help them perform their chosen function given the list of equipment that is available or the equipment that is present at the Media Center with 100% accuracy.</p> <p>2.1 GOC Adult learner will be able to match the types of functions each piece of equipment can be used for given the list of equipment with associated functions with 100% accuracy.</p>	<p>(2.0-2.1) Match the equipment (DVD player, Apple TV, Cable Box, Karaoke machine, VCR, Receiver, etc.) that can be used with the type of function below:</p> <ul style="list-style-type: none"> a. Watch a movie b. Listen to music c. Give a presentation
3.0 GOC Adult learner will be able to choose the remote control that is associated with the type of equipment that they would like to use given the list of available remote controls or the remote controls present at the Media Center with 100% accuracy.	(3.0) Match the remote control with its corresponding digital device that it controls.
3.1 GOC Adult learner will be able to determine if they can use the Apple TV device remotely, and then choose which mobile device works in conjunction with their chosen function, given the AirPlay website that contains the list of mobile devices compatible with Apple TV, all with 100% accuracy.	<p>(3.1) Choose which mobile devices work with Apple TV from this list that will perform your chosen function:</p> <ul style="list-style-type: none"> a. Macbook b. iPod c. iPad d. iPhone 5 e. Nook
4.0 GOC Adult learner will <u>DEMONSTRATE</u> accessing the “Select Input” menu on the TV monitor given the TV remote control and the instructions on how to do so with 100% accuracy.	(4.0) Demonstrate being able to access the “Input Selection Menu” on the TV set using the TV remote control. <u>Alert facilitator of what you will be doing.</u>

<p>4.1 GOC Adult learner will be able to select the proper “Input” number that is associated with the device that they have chosen given the list of devices and their input numbers with 100% accuracy.</p>	<p>(4.1) Match the “Input” with its corresponding device (VCR, DVD player, Cable Box, etc.).</p> <ol style="list-style-type: none"> Input 1 Input 2 Input 7 Input 8
<p>4.2 GOC Adult learner will be able to list which ports are open/available and can be connected to other/personal external devices, and which ports are not available with 100% accuracy given the list of ports that are already connected to a device and list of ports that are open.</p>	<p>(4.2) List what type of equipment (RCA, VGA, or HDMI) can be connected to the Input listed below:</p> <ol style="list-style-type: none"> Input 3 Input 4 Input 5
<p>5.0 GOC Adult learner will be able to <u>DEMONSTRATE</u> attaching external device to available port without further assistance unless otherwise directed (if new future technology has been introduced that is not covered by this module, learner should then contact parish IT Ministry) given the slideshow demonstration with 100% accuracy.</p>	<p>A pass/fail rubric was established for this skill, and the participants were prompted to notify observer when they reached this point.</p>
<p>5.1 GOC Adult learner will be able to select what types of external devices (RCA, VGA, and HDMI) can be connected to available ports given a list of devices and corresponding port types with 100% accuracy.</p> <p>5.1.1 – 5.1.3 GOC Adult learner will be able to select the types of cables required (RCA, VGA, and HDMI) for the types of available ports given a list of types of cables with 100% accuracy.</p>	<p>(5.1 – 5.1.3) Match the types of cables with the types of ports (Matrix of drop-down menus type question from Survey Monkey).</p> 
<p>5.2 GOC Adult learner will be able to <u>DEMONSTRATE</u> whether or not the type of port required for their device is available; and if not then acquire further assistance as directed, or select a different device to perform their previously chosen function, given the previous procedural instruction and all with the 100% competency.</p> <p>6.0 GOC Adult learner will be able to <u>DEMONSTRATE</u> how to start performing their chosen function given the Media</p>	<p>(5.0, 5.2 & 6.0) Connect a laptop or other external mobile device to an available port. Start performing chosen function. <u><i>Alert facilitator of what you will be doing.</i></u></p>

Center with the 100% competency.	
<p>6.1 GOC Adult learner will <u>DEMONSTRATE</u> adjusting the volume on the receiver if necessary (TV volume first, then choosing to do so through the receiver if more sound is required) given instructions for that procedure with 100% competency.</p> <p>6.2 GOC Adult learner will be able to choose the appropriate mode on receiver according to which device that they are using, given instructions for selecting either a specific device for even more enhanced sound quality, or the standard setting for all other devices, without further assistance unless otherwise directed and with 100% competency.</p> <p>6.2.1 - 6.2.2 GOC Adult learner will <u>DEMONSTRATE</u> choosing between the mode on the receiver for either the DVD player or cable box in order to obtain a higher quality sound for their chosen function, given that equipment and a set of instructions, without requiring any further assistance unless having technical issues with connecting their own external device.</p>	<p>(6.1-6.2.2) Select the proper mode on the receiver (TV, DVD, or Video 2) for the device you would like to use (All, DVD, or Cable Box). Demonstrate adjusting volume levels. <u>Alert facilitator of what you will be doing.</u></p>
<p>7.0 GOC Adult learner will be able to acquire further assistance from other GOC parishioners if available and required with 100% competency in their chosen means/method.</p>	<p>A pass/fail rubric was established for this skill, and the participants were prompted to notify observer when they reached this point.</p>
<p>7.1 GOC Adult learner will be able to initiate and complete online research for available tutorials and/or user guides for new equipment not covered by this instructional module without further assistance or 100% functionality, given instructions on how to do so.</p>	<p>(7.1) Demonstrate online search for tutorial on electronic device not discussed in this instructional module (you may do a search for iPods for example).</p>
<p>7.2 GOC Adult learner will be able to acquire further assistance from IT Ministry given instructions and contact info with 100% functionality.</p>	<p>(7.2) Demonstrate getting further assistance from parish IT. <u>Alert facilitator of what you will be doing.</u></p>
<p>8.0 GOC Adult learner will be able to <u>DEMONSTRATE</u> completing chosen function</p>	<p>A pass/fail rubric was established for this skill, and the participants were prompted to notify</p>

at the Media Center given previous instruction and devices with the 100% competency.

observer when they reached this point.

Appendix L - *Project Charter or “Purpose Statement” submitted to St. Nicholas GOC*

St. Nicholas GOC Equipment Instruction Proposal **2013**

INTRODUCTION:

It has been proposed in the last parish council meeting that Nick Syrpis might create an instructional package to serve the needs of the St. Nicholas community as a Capstone Project for his UNCW MIT program. A needs analysis had been conducted and it has been determined that an instructional package on how to use the TV set in the Hellenic Center will be most effective. Official approval from the Parish Council, as well as the UNCW MIT Capstone Panel, is now required so that we can move forward with this project.

PROJECT DESCRIPTION:

The product that will be designed and developed will include three major deliverables that will assist anyone with any technological aspect associated with the TV set for years to come. The deliverables will be an online instructional package, a digital package (disc and/or hard drive), and print materials (small and easy to use guide). The content in all three of these packages will be similar and may contain instruction on how connect and use laptops to TV for presentations (both Mac and PC), how to use peripheral devices (VCR, DVD player, etc.), and how to use and adjust cable services. The exact specifics will be decided upon during the Design Phase (next step – see “TIMELINE”) of this project. In addition, instructional facilitator may be included as part of the design, but that will depend on availability and time constraints.

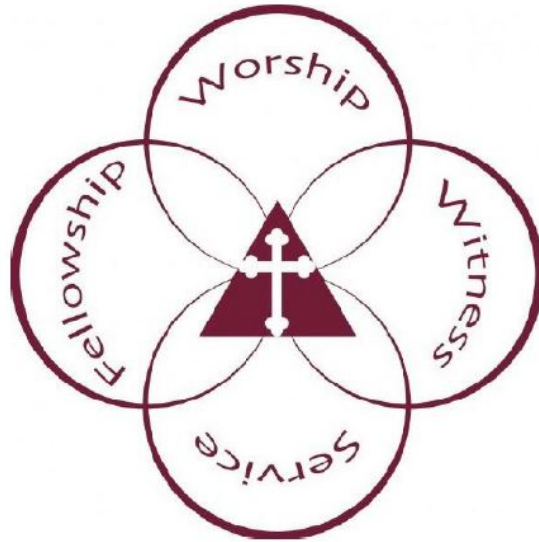
COSTS:

There will be zero cost to St. Nicholas for any aspect in the design, development and implementation of this project. Facilitators may be required, but that will be on a voluntary basis. After the products have been developed, a handful of participants not familiar with the skills being learned will also be required, but those participants can come from within the parish community or from other sources. Web space will be required for the online part of the instruction, but the products will be designed with constraints in mind (such as uploading any instructional videos to YouTube instead, freeing up server space). All other man hours, facilities, equipment, software, and so on will be contributed in kind by Nick Syrpis.

TIMELINE:

Front End Analysis	COMPLETED – pending tonight’s input & feedback
Approvals	Parish Council on 9/3/13, and UNCW MIT Capstone Panel by 9/13/13.
Design Phase	By October 4th
Development	By November 1st
Implementation & Formative Evaluation	By November 15 th + Final submission will include recommendations from evaluation – 11/22/13

Appendix M – Venn Diagram of organizational goals which represents the focus of the parish council and the organization's ministries

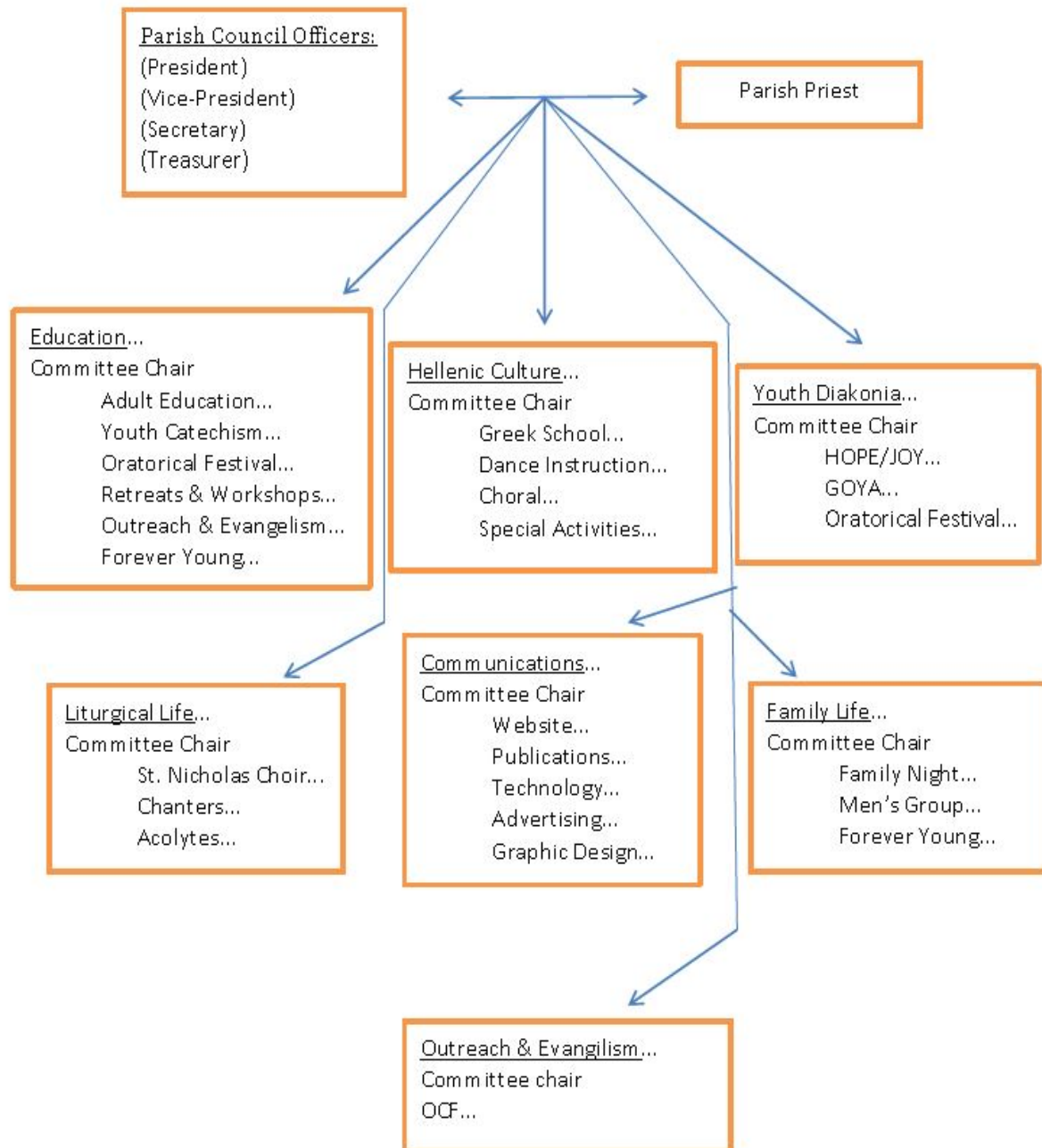


Appendix N – Representation of Orthodox faith jurisdictional alignment (for GOA,) showing leaderships Christ-centered focus, and then moving from local, to regional, to international levels

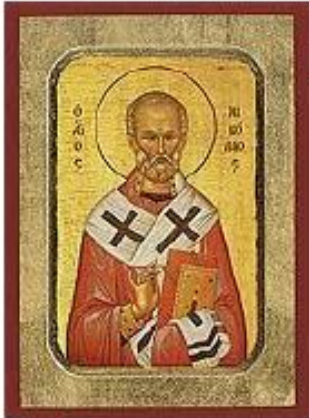


METROPOLIS
OF ATLANTA

Appendix O – Organizational committee workflow



Appendix P – Mission & Vision Statements



ST. NICHOLAS GREEK ORTHODOX CHURCH

MISSION

St. Nicholas Greek Orthodox Church is dedicated to the continuation of our Lord and Savior Jesus Christ's ministry of salvation through the proclamation and teaching of the Gospel; through Baptism in the name of the Father, Son, and Holy Spirit; and through loving service to God and mankind.



















VISION

The community will provide a loving, caring and welcoming environment where all belong and grow in the faith through Worship, Service, Witness and Fellowship.

Retrieved 12/30/13 from <http://www.stnicholaswilmington.org/Mission.html>

Appendix Q – Elaboration Theory Applied

Strategy	Application	Example																
<p>1. Organizing Structure - It is the course's primary structural focus and can be either <u>procedural</u>, conceptual, and theoretical.</p>	<p>Because of the nature of the content, the procedural organizing structure is the primary means of organizing the tasks.</p>	<p>TV Center Website HOMEPAGE</p> <p>Available Devices</p> <p>Remote Controls</p> <p>Switching Between Different Inputs/Devices</p> <p>Connecting Personal Devices to Available Inputs/TV Ports</p> <p>Audio Adjustments</p> <p>Further Assistance</p>																
<p>2. Simple-to-Complex Sequence- This sequencing starts with an epitome, which is not necessarily a summary of the content as a whole, but instead is the simplest general representation of that content.</p>	<p>The learner was given the most basic task from the ultimate learning objective, which is to choose what type of "function" or task that they would like to perform.</p>																	
<p>3. Within-lesson Sequencing- According to organizing structure initially chosen, <u>organize</u> content in the appropriate prescribed manner.</p>	<p>In this case, the procedural domain or organizing structure was chosen, and the content was presented it would be performed.</p>	<p>Hints & Tips:</p> <p>In order to be able to view content from a specific device that is located at the TV Center, you must:</p> <ul style="list-style-type: none"> • Before starting, remember to turn on the TV set and the device of your choice... <ol style="list-style-type: none"> 1. press the INPUT button on the TV remote 2. press the up or down arrow to select the correct input number that corresponds to the device that you would like to use from the table below 3. press ENTER button after the correct input has been highlighted <p>The content from the device should now be displayed on the TV set. Give it a moment, because some devices take longer to load up.</p>																
<p>4. Summarizers- include content reviews, which can be done at the lesson or unit levels.</p>	<p>The learner is able to apply their learning as they go, choosing to do so whenever they feel comfortable with the content, or when they are prompted.</p>	<p>Try It Out!</p> <p>To get an idea of how broad a range such information is available, go to GOOGLE.com and type the phrase "How to make a peanut butter sandwich" in the search field, and then press ENTER. How many tutorials are available? Are there any available in YouTube?</p>																
<p>5. Synthesizers- Tools such as diagrams can be used to help the learner assimilate the meaning of the lesson as a whole.</p>	<p>Lists and charts are used throughout to assist the learner in establishing such links to existing knowledge, or help assist the mental task of organizing content.</p>	<p>Table of INPUTS & Their Respective Devices or Ports</p> <table border="1"> <tbody> <tr> <td>INPUT 1</td><td>(VCR) Video Cassette Player/Recorder</td></tr> <tr> <td>INPUT 2</td><td>DVD Player</td></tr> <tr> <td>INPUT 3</td><td>OPEN PORT: for RCA devices</td></tr> <tr> <td>INPUT 4</td><td>OPEN PORT (cable): VGA cable for PC & Mac devices (adaptors available)</td></tr> <tr> <td>INPUT 5</td><td>OPEN PORT: for HDMI devices (cable available)</td></tr> <tr> <td>INPUT 6</td><td>Please acquire further assistance for this available port</td></tr> <tr> <td>INPUT 7</td><td>Apple TV Device</td></tr> <tr> <td>INPUT 8</td><td>Cable TV Box</td></tr> </tbody> </table> <p>#For "OPEN PORTS" please visit the Connecting Personal Devices webpage for further details.</p>	INPUT 1	(VCR) Video Cassette Player/Recorder	INPUT 2	DVD Player	INPUT 3	OPEN PORT: for RCA devices	INPUT 4	OPEN PORT (cable): VGA cable for PC & Mac devices (adaptors available)	INPUT 5	OPEN PORT: for HDMI devices (cable available)	INPUT 6	Please acquire further assistance for this available port	INPUT 7	Apple TV Device	INPUT 8	Cable TV Box
INPUT 1	(VCR) Video Cassette Player/Recorder																	
INPUT 2	DVD Player																	
INPUT 3	OPEN PORT: for RCA devices																	
INPUT 4	OPEN PORT (cable): VGA cable for PC & Mac devices (adaptors available)																	
INPUT 5	OPEN PORT: for HDMI devices (cable available)																	
INPUT 6	Please acquire further assistance for this available port																	
INPUT 7	Apple TV Device																	
INPUT 8	Cable TV Box																	

<p>6. Analogies- These relate the content to learner's prior knowledge. They can be "weak" and more differences to the content than stronger analogies would.</p>	<p>Instruction has been set up where it is <u>scaffolded</u>, starting with a segment of instruction that the learner is likely already familiar with, such as choosing a function to perform, and then gradually building up to something that they are not, like connecting external devices.</p>	<p>Demonstrations:</p> <div> <div>Connecting RCA Devices </div> <div>Connecting VGA Devices </div> <div>Connecting HDMI Devices </div> </div>
<p>7. Cognitive Strategy Activators- Using cues to trigger cognitive strategies can be "embedded" or "detached." Items such as pictures or diagrams can be <u>used</u>, or simply providing instructions to create mental maps.</p>	<p>In this case, both were used. Some images include text instruction, which may fall under both categories. Other pictures provide implied instructions, such as where some items can be located. Learners may also be asked to mentally work through a problem.</p>	<p>Remote Controls</p>  <p>Hints & Tips:</p> <p>This webpage is designed to familiarize you with the remote controls available, which devices that they belong to, and introduces you to "AirPlay." Apple TV can be used remotely with your personal Mac mobile devices such as iPad and iPhone 4 or later through the software package called AirPlay.</p> <p>The remote controls can be found on the smaller cabinet to the right of the entertainment center. Please put the remote controls back after using them.</p> <p>TIP: If remote control is not working, remember to point it directly to its corresponding device when using it, and always check the batteries if it is still not responding well or at all.</p>
<p>8. Learner Control- Learners are encouraged to exercise control over content and instructional strategy.</p>	<p>In this case, the learner is given the freedom to pick and choose what content they would like to learn about. In addition, they are given the option to learn directly from the content provided, do further research online for content that may not be available, or simply use the printed job aid for reference purposes for those learners that are more well versed with the use of technological devices.</p>	<p>St. Nicholas Greek Orthodox Christian Church TV Center Informational Website</p> <div> <div>TV Center Informational Website </div> <div>Available Devices </div> <div>Remote Controls Available </div> <div>Switching Input Device Using Control </div> <div>Connecting External Devices </div> <div>Adjusting Audio Quality </div> <div>Assistance Further Assistance </div> </div> <p>Available Electronic Devices</p> <p>Navigation Bar for Device Webpages</p> <p>These buttons will take you to the device webpages that contain more information on each device, and their user manuals.</p> <div> <div>TV </div> <div>Cable Box </div> <div>VCR </div> <div>DVD Player </div> <div>Apple TV </div> <div>Receiver </div> <div>Karaoke </div> </div> <div> <p>St. Nicholas GOC</p> <p>TV Center Website HOMEPAGE</p> <p>Available Devices</p> <p>Remote Controls</p> <p>Switching Between Different Inputs/Devices</p> <p>Connecting External Devices to Available Inputs/TV Ports</p> <p>Audio Adjustments</p> <p>Further Assistance</p> </div>

Appendix R – Formative Evaluation Results

On Site Testing				
Evaluand	Age	Pre-Test	Post Test	Notes
Par. 1a	Middle (40-64)	31%	62%	Shut down (hostile) from the start because product was not what was expected (web-based and not print), and was consequently avoidant with using website. Chose to stop evaluation before completing posttest.
Par. 2a (sg)	Middle (40-64)	62%	100%	Participant was from outside of GOC community and was therefore asked to familiarize himself with Media Center to better play the role of parishioner during testing.
Par. 3a (sg)	Older (65+)	31%	92%	Completely intimidated by technology and was disappointed in delivery system (computer based instead of print), and was therefore reluctant to engage instruction.
Median	Middle	31%	92%	
<i>"sg" stands for "small group" participants</i>				

Online Testing				
Evaluand	Age	Pre-Test	Post Test	Notes
Par. 1b	Middle (40-64)	23%	62%	Wanted clarity on where to find specific item on website (navigation was not 100% effective).
Par. 2b (sg)	Younger (19-39)	31%	62%	Evaluand has mental disabilities that include lower cognitive ability, memory impairment and partial loss of vision.
Par. 3b (sg)	Older (65+)	0%	62%	Evaluand has physical impairment that does not allow her to stay in one spot for extended periods of time, displayed severe anxiety, and had emotional distress over personal circumstances.
Median	Middle	23%	62%	
<i>All of the online evaluands were from outside of the GOC community</i>				

Appendix S – Instrumentation for Evaluation

*This Pre-test provides the baseline for entry level knowledge. It is okay if you do not know the answers. Please do not look them up. Instead, if you do not have an answer then please **leave the question blank**. You will be retested after instruction for the content has been provided. Thank you for your assistance.*

2. Taking into consideration what is available at the Media Center, choose the function that you would like to perform.
3. Taking into consideration what is available at the Media Center, list two functions that you would potentially like to perform here at a future date.
4. List any device that can be used with each type of function below using current knowledge of the type of equipment that is available at the Media Center:
 - a. Watching a movie
 - b. Listening to music (internet & CDs only)
 - c. Giving a presentation
5. Label the remote control with the name of its corresponding digital device that it controls.



6. Circle which mobile devices work with Apple TV from this list:

- | | |
|------------|-------------|
| a. Macbook | d. iPhone 5 |
| b. iPod | e. Nook |
| c. iPad | |

7. Demonstrate being able to access the “Input Selection Menu” on the TV set using the TV remote control. Alert facilitator of what you will be doing.

8. Match the “Input” with its corresponding device (VCR, DVD player, Cable Box, etc.).

- a. Input 1
- b. Input 2
- c. Input 7
- d. Input 8

9. List what type of equipment (RCA, VGA, or HDMI) can be connected to the Input listed below:

- a. Input 3
- b. Input 4
- c. Input 5

10. Match the types of cables with the types of ports.



11. Connect a laptop or other external mobile device to an available port. Start performing chosen function. Alert facilitator of what you will be doing.

12. Select the proper mode on the receiver (TV, DVD, or Video 2) for the device you would like to use (All, DVD, or Cable Box). Demonstrate adjusting volume levels. Alert facilitator of what you will be doing.

13. Demonstrate online searching by finding a tutorial on making PB&J sandwiches. Write the name of that website or URL here:

14. Demonstrate getting further assistance from parish IT. Alert facilitator of what you will be doing.

Appendix T – Print Job Aid with edit suggestions (one page only here)

TV Center Instructional Guide Τηλεόραση κέντρο εκπαιδευτικό εγχειρίδιο

Instructions: This guide has been created to provide simple instruction on how to switch back and forth from different devices, connect your own device, and make adjustments.

Αυτός ο οδηγός δημιουργήθηκε για να παρέχει απλές οδηγίες για το πώς να μεταφέρετε ορατότητα από διαφορετικές συσκευές, συνδέσετε τη συσκευή σας και να κάνετε αλλαγές.

Before using this Instructional Guide, you should already know how to turn on devices and use their basic features, connect cables, use your own devices and software, browse through the internet, have some familiarity with Apple TV/AirPlay, and general features for the karaoke machine.

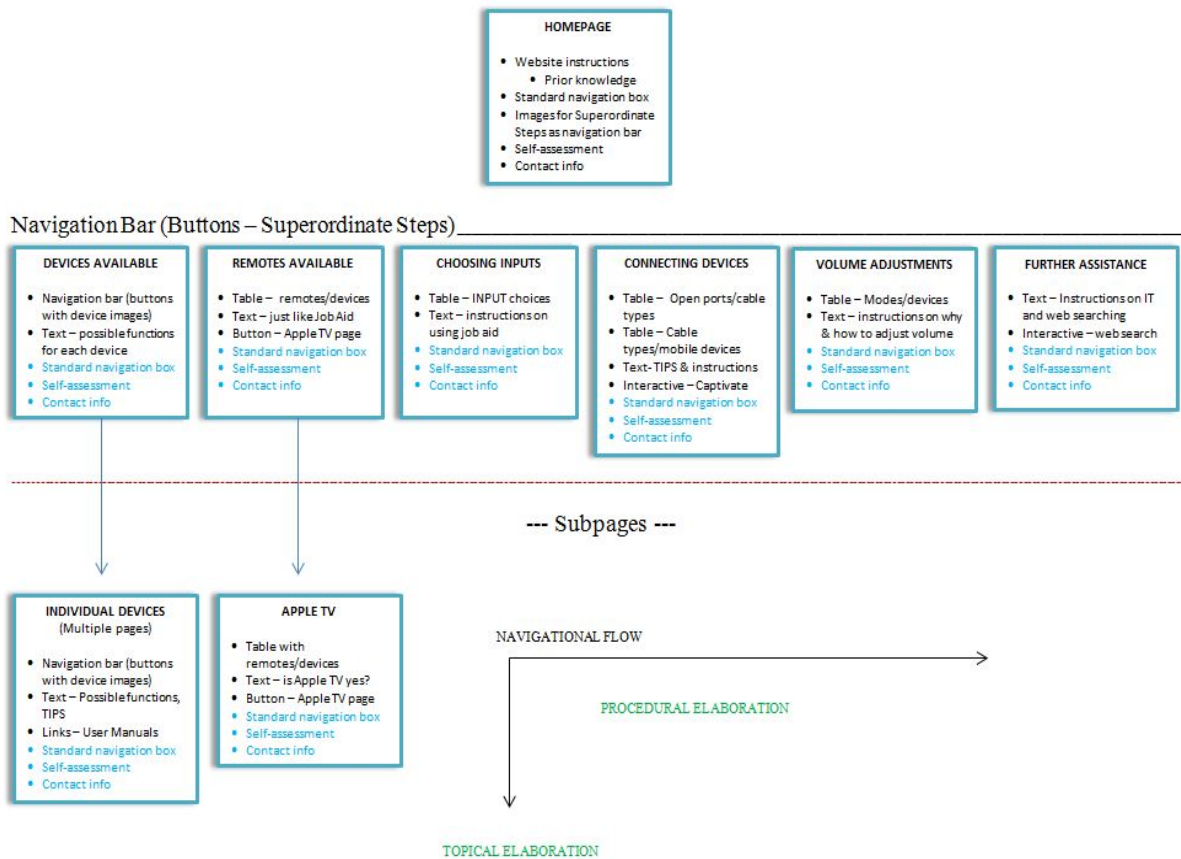
Πριν από τη χρήση this δοικειά βοήθew, πρέπει να ξέρετε ήδη πώς να ενεργοποιήσετε συσκευές και χρησιμοποιηw βασικά χαρακτηριστικά τους, συνδέw τα καλώδια, χρησιμοποιήw τα δικά σας συσκευές και τα λογισμικά, περιηγηθείτε μέσω από το Διαδίκτυο, έχw κάποια εξοικείωση με το Apple TV, και πώς να χρησιμοποιήw το μηχανήμα karaoke.

First, choose what you would like to do: Watch a movie, watch a TV broadcast, listen to music, give a presentation, and so on. **Second,** choose the device that will best fit your needs. For example:

Κατ' αρχάς, επιλέξτε τι θέλετε να κάνετε: να καλυνθείw μια ταινία, να παρακολουθείw τηλεόραση, ραδιοφωνική μετάδοση, να ακούwte μουσική, να δώwte μια παρουσίαση, και αúτω καθεξής. Δεύτερον, να επιλέξτε τη συσκευή που θα ταιριάζει καλύτερα στις ανάγκες σας. Για παράδειγμα:

Task to be performed	Device that can be used
Καθίζουwτος που να γίνwει	Συσκευή που μπορεί να χρησιμοποιηθεί
Listening to music – Ακούwte μουσική	Receiver, DVD player, iPod, laptop, Apple TV, karaoke machine, etc
Giving a presentation – Δίνουwτας μια παρουσίαση	VCR, DVD player, laptop, iPad, iPhone, MacBook, Apple TV (AirPlay), etc.

Appendix U – Navigational Flowchart for Website



Appendix V – Maintenance Plan embedded evaluation

Monkey Survey

Thank you and God bless.

1. How helpful was this instruction?

Not at all Somewhat Fairly Very

☐ ☐ ☐ ☐

2. If you could, how would you improve on this instructional website (omit, include, change, etc.)?

Done

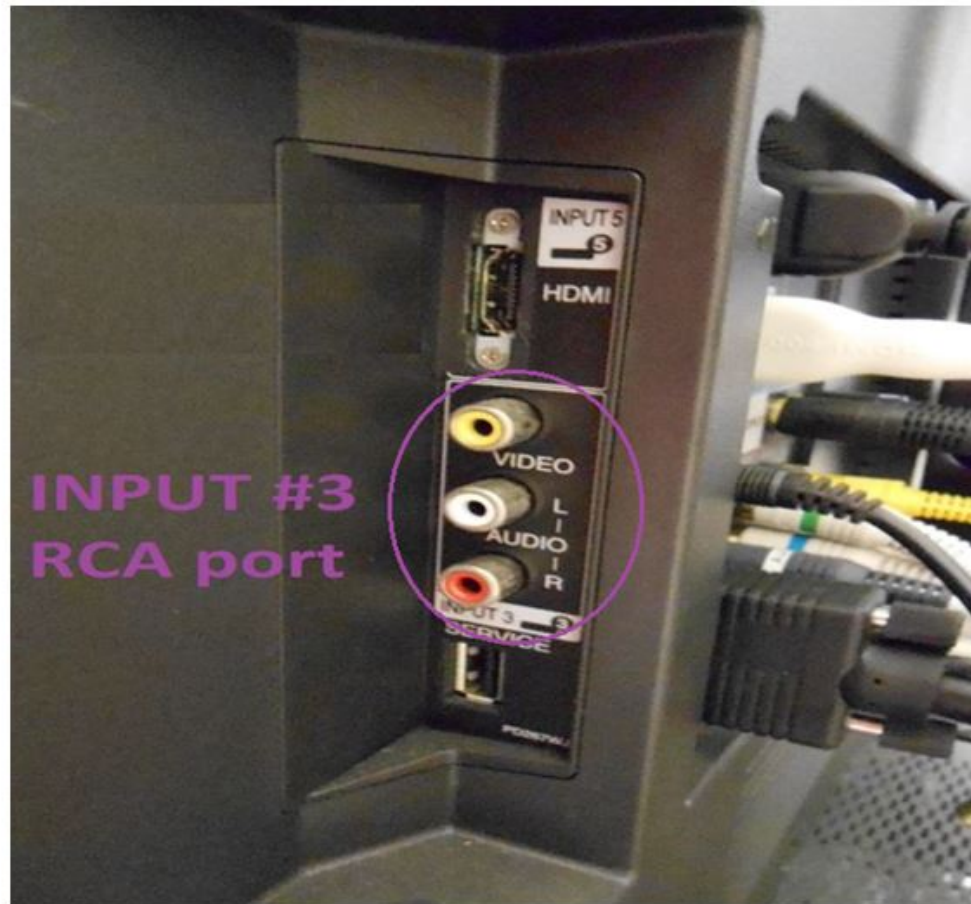
Create your free online surveys with [SurveyMonkey](#), the world's leading questionnaire tool.

Appendix W – Storyboard for Demonstrations (Captive Products)**RCA Demonstration**

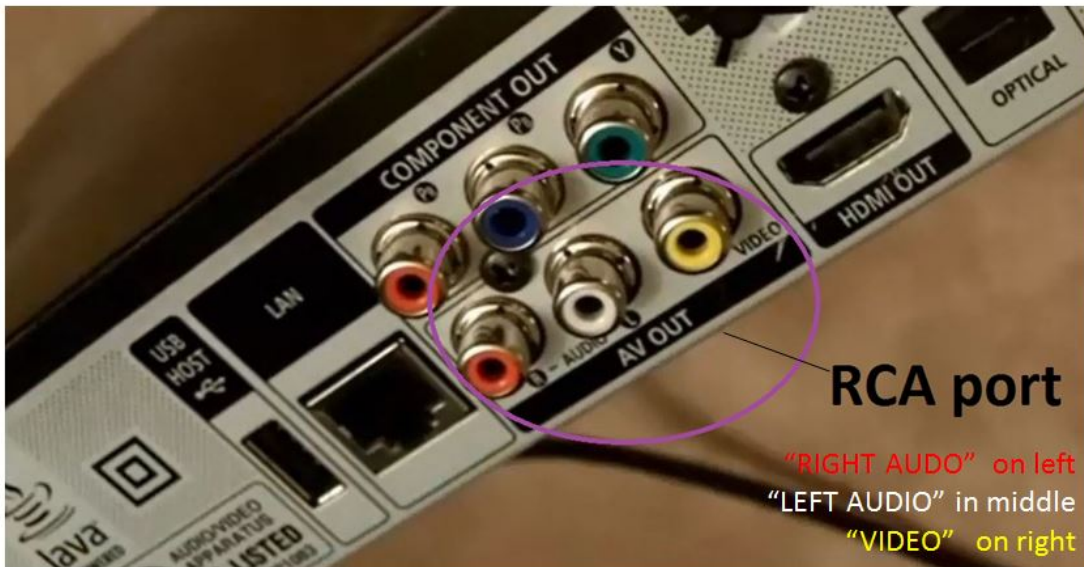
TV Input 3 – RCA Port close up

Located
on the
right
side of
the TV
set.

Stand
close to
the wall
to see it.



Universal RCA port on devices



NOTE: Some personal devices may have specialized ports and cables (see last slide).

Standard RCA cable



- TV sets and devices will have color coded ports to match up with.
- Some personal devices other devices may have specialized ports and cables (see last slide).

Connecting cable to ports



- Plug them in one at a time
- Use thumb and index finger to stabilize tip
- Make sure tip is level with port
- Be certain that the connection is plugged in snugly
- Repeat these steps for personal device

Specialized RCA cables/ports



- Some devices have customized ports & cables
- This cable comes with device at time of purchase
- Nothing except for half of connection procedure changes
 - Specialized tip plugs into device with specialized port
- If TV end of cable has only 2 tips or different colors, then trial & error method is best

VGA Demonstration

TV Input 4 – VGA Cable Location

Located on the right side of the TV set.

NOTE: It is already connected by one end to the TV set.



Standard & Available VGA cable



- The VGA cable that is available has additional **audio cable attached** to it (pic on right)
- That is the end that connects to your laptop

Universal RCA port on devices



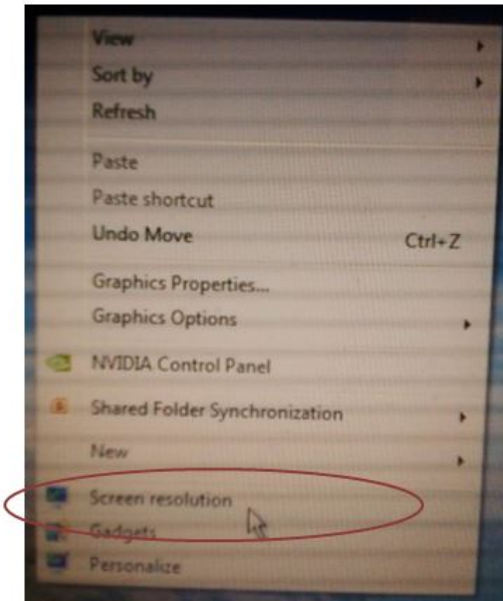
- Notice the markings on both ports
- VGA port on left is universal port
- Headphone jack is generally next to mic jack

Connecting cables to ports



- Make sure that the end of cable is *properly aligned* with port on device
 - i.e. Long edge on both are on top
- Remember to **connect audio cable too!**
- Use thumb and index finger to stabilize tips, and make sure tip is level with ports
- Be certain that connections are plugged in snugly

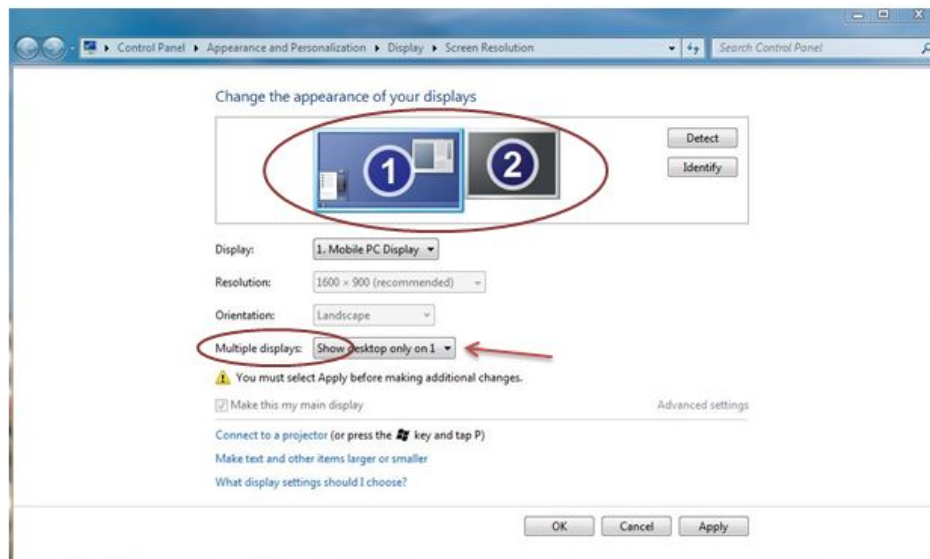
Adjusting TV Monitor if required



Note that sometimes image on TV does not appear at all, or appears improperly

Step 1: Right-click anywhere on computer monitor screen. A pop-up window appears. Select “**Screen Resolution**” from the list in that window

Select the display option

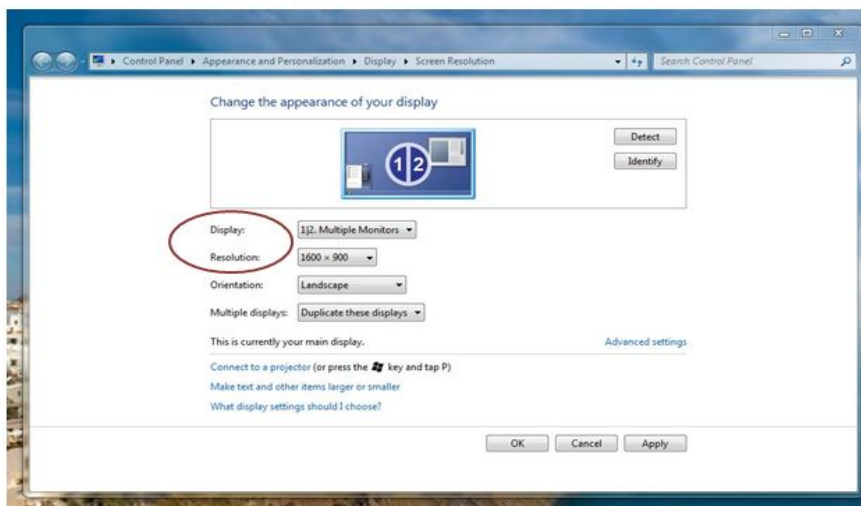


Step 2: Notice that one monitor icon on the top of the window is greyed out at this point. Click on “**Multiple displays**” button. Then select “**Duplicate Displays**” from the dropdown menu.

Confirm your selection



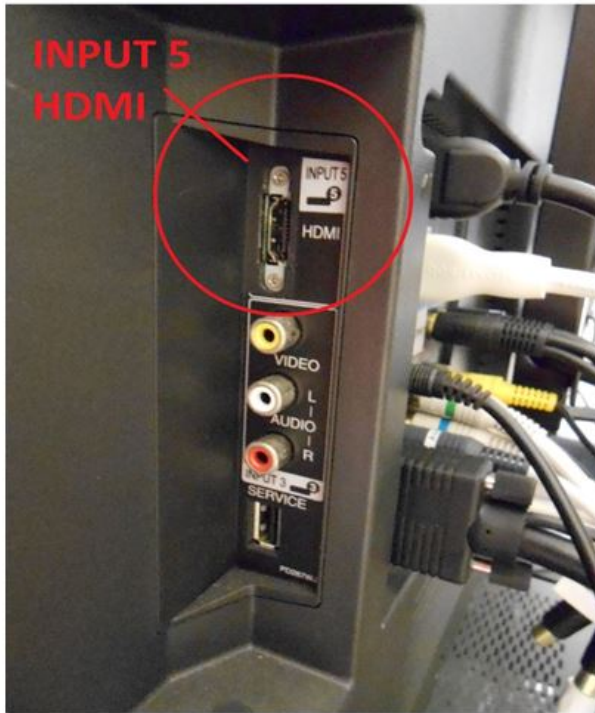
Image quality adjustments



Step 5: TV and computer monitors should now display the same thing. Select and test the **"Display"** and/or **"Resolution"** settings that best suits your specific needs. Contact the IT Ministry if further assistance is required.

HDMI Demonstration

TV Input 5 – HDMI Port



Located on the right side of the TV set.

Stand close to the wall to see it.

Universal HDMI port on devices



This type of port and cable is available on newer devices that have **High Definition (HD)** features.

Ports on smaller devices will vary, and require specialized cables or adapters.

HDMI Cable Types



Universal HDMI Cable



HDMI Cable Adapter

Specialized cables will either come with your device at time of purchase, or can be purchased separately.

In addition, **adapters** can also be purchased separately.

Connecting cable to ports



- Use thumb and index finger to stabilize tip, and make sure tip is level with port
- Align cable tip with port, matching up long edge to long edge and so on
- Be certain that the connection is plugged in snugly
- Repeat these steps for both ends of cable, connecting to both TV and to personal device


Troubleshooting tips

- Mobile devices require *specialized* cables or adapters that may need to be purchased
- **Older devices** might have **no HDMI** feature
- For audio issues, type “**Connect Computer to TV With HDMI With AUDIO/Sound**” into the YouTube search field <http://www.youtube.com/watch?v=4DA6CMsde2k>
- For further assistance, contact the St. Nicholas GOC Technology Ministry


Appendix X – Website Usability on mobile device testing results

Mac Devices			
Product Name	Component	Success (Y-N)	Comments
iPad Air (2013- latest)	Appearance	N	<ul style="list-style-type: none">Survey Monkey did not even appear on webpage.Alignment was off: Header was out of order (needs to be centered).
	Captivate (link on very bottom)	y	
	Survey	N	
	Images	y	
	Sub-links	y	
iPhone 5	Appearance	y	<ul style="list-style-type: none">Had to scroll around to see captivate demonstrationEmbedded survey did not appear
	Captivate	N	
	Survey	N	
	St. N. Home	y	
	Website Home	y	
Other iPad Mini	Appearance	y	<ul style="list-style-type: none">Embedded survey did not appear
	Captivate	y	
	Survey	N	
	St. N. Home	y	
	Website Home	y	
Other iPad	Appearance	y	<ul style="list-style-type: none">Embedded survey did not appear
	Captivate	y	
	Survey	N	
	St. N. Home	y	
PC & Android Devices			
Product Name & Type	Component	Success (Y-N)	Comments
Android Phone -	Appearance	N	<ul style="list-style-type: none">Some of the buttons were misaligned and going over the border from the main navigation bar.Had to scroll around for demonstration
	Captivate	N	
	Survey		
	St. N. Home		
	Website Home		
Android Phone -	Appearance		<ul style="list-style-type: none">Had to scroll around for demonstration
	Captivate	N	
	Survey		
	St. N. Home		
	Website Home		
Laptop Toshiba	Appearance	Y	<ul style="list-style-type: none">
	Captivate	Y	
	Survey	Y	
	St. N. Home	Y	
	Website Home	Y	

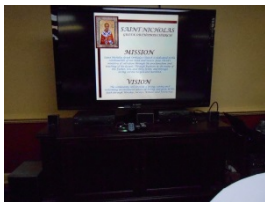
Appendix Y – Website Storyboard

Storyboard Form	
Your Name and ID: Nick Syrpis – UNCW MIT Grad Student & St. Nicholas Parish Member	
Page Title: Homepage	File name:
<p>Description of Copy text (what the text will accomplish on this page):</p>	<p>This website is designed to guide you through using the electronic devices available at the Media Center. You will learn:</p> <ul style="list-style-type: none"> ❖ Devices available and their advanced capabilities ❖ Possible functions that can be performed using those devices ❖ Remotes for Devices ❖ Apple TV capabilities ❖ Switching back and forth from the different devices ❖ Connecting external devices to available TV ports ❖ Types of cables and extensions to be used for different types of ports ❖ Using receiver to make volume adjustments ❖ How to acquire further assistance (including surfing the web for tutorials) <p>Please be aware that a printed User Guide (Job Aid) is available at the Media Center for your convenience so that you do not have to memorize the lists of items on this website. The website itself elaborates on the content in that Job Aid.</p> <p>There will be opportunities to test your new knowledge and skills embedded on the website, and you will be encouraged to apply your learning as you go. Please complete the 2 question survey (can only be completed once) after you are done using this website so that the IT Ministry members will know how effective it is, and what adjustments can be made to improve on it for you and other future users. We thank you for your assistance in making this process successful.</p> <p>You should already know how to do the following before using this website (please seek further assistance if you do not):</p> <ul style="list-style-type: none"> ○ Basic features on devices (turning them on, pressing play, etc.) ○ Basic features for remote controls (same as devices) ○ Using features on personal external devices (including software, etc.) ○ Navigate through the internet ○ Physical aspect of connecting wires to a devices open port ○ Acquiring assistance from others if needed (one hand washes the other)
Links on the page:	Links to subpages
User Interaction (navigating only or navigating plus opportunity to contribute?)	<p>Navigating only ---</p> <p>Standard Navigation Box to left (used throughout website)</p> <p>Self – Assessment for Quality Control and IT Ministry contact info on bottom</p>
Graphical Elements/Images (description plus file name:	 <p>Images for buttons for navigation bar on homepage (Procedures Navigation)</p>
Color specs:	Blue gutters & outlines, white background, and black text --- throughout website (except for individual device subpages)


Font specs:	CALIBRI – Calibri (12 pt) ----- throughout website
-------------	--

Storyboard Form	
Page Title: Electronic Devices Available	File name:
Description of Copy text (what the text will accomplish on this page):	<p>This webpage houses a section that is focused on introducing you to the devices that are available at the Media Center, the types of functions that they can be used to perform, and how to use their more advanced features if required. When clicking on the buttons in the navigation bar, you will be taken to that device's individual webpage which will include the device's instructional manual and may include additional tips on what to be aware of concerning the use of the device.</p> <p>Embed table of functions and applicable electronic devices. See Job Aid mockup for details.</p>
Links on the page:	Links to subpages (Buttons for individual devices)
User Interaction (navigating only or navigating plus opportunity to contribute?)	<p>Navigating only ---</p> <p>Standard Navigation Box to left (used throughout website)</p> <p>Self – Assessment for Quality Control and IT Ministry contact info on bottom</p>
Graphical Elements/Images	 <p>Images for buttons for 2nd navigation bar (Devices Navigation)</p>

Storyboard Form

Page Title: Widescreen TV		File name:
Description of Copy text (what the text will accomplish on this page):	<p>This webpage is designed to introduce you to the TV. It includes a link to the devices user manual and some quick tips on what to look for and what to avoid while using it. The manual will provide you with instruction on how to use the device's advanced features and its associated remote control.</p> <p style="text-align: center;">TIPS:</p> <ul style="list-style-type: none"> ❖ Makes sure devices are plugged in and turned on before using ❖ Remember to point remote control directly to its device ❖ TV has all other devices connected directly to it, so accessing other devices must be done through TV "Input" menu (see Choosing Inputs link for further details) 	
Links on the page:	User manual	
User Interaction (navigating only or navigating plus opportunity to contribute?)	<p>Navigating only ---</p> <p>Standard Navigation Box to left (used throughout website)</p> <p>Self – Assessment for Quality Control and IT Ministry contact info on bottom</p>	
Graphical Elements/Images (description plus file name:	<p>Same images for buttons for 2nd navigational bar: Devices Navigation</p>  <p>plus image of TV imbedded in text at beginning</p>	
Color specs:	Darker blue gutters & outlines (Distinguishable from rest of website), white background, and black text	

Storyboard Form

Page Title: VCR (Video Cassette Recorder)		File name:
Description of Copy text (what the text will accomplish on this page):	<p>This webpage is designed to introduce you to the VCR. It includes a link to the devices user manual and some quick tips on what to look for and what to avoid while using it. The manual will provide you with instruction on how to use the device's advanced features and its associated remote control.</p> <p style="text-align: center;">TIPS:</p> <ul style="list-style-type: none"> ❖ Makes sure devices are plugged in and turned on before using ❖ Remember to point remote control directly to its device ❖ Make sure VCR heads have been cleaned and video cassette and its magnetic tape inside are not damaged before playing 	
Links on the page:	User Manual	
User Interaction (navigating only or navigating plus opportunity to contribute?)	<p>Navigating only ---</p> <p>Standard Navigation Box to left (used throughout website)</p> <p>Self – Assessment for Quality Control and IT Ministry contact info on bottom</p>	
Graphical Elements/Images (description plus file name:	<p>Same images for buttons for 2nd navigational bar: Devices Navigation</p>  <p>plus image of VCR imbedded in text at beginning</p>	
Color specs:	Darker blue gutters & outlines (Distinguishable from rest of website), white background, and black text	

Storyboard Form

Page Title: DVD Player (Digital Video Disc)	File name:
Description of Copy text (what the text will accomplish on this page):	<p>This webpage is designed to introduce you to the DVD Player. It includes a link to the devices user manual and some quick tips on what to look for and what to avoid while using it. The manual will provide you with instruction on how to use the device's advanced features and its associated remote control.</p> <p style="text-align: center;">TIPS:</p> <ul style="list-style-type: none"> ❖ Makes sure devices are plugged in and turned on before using ❖ Remember to point remote control directly to its device ❖ Check DVD for scratches, smudges or other damage before playing. Scratched DVDs can possibly be fixed by a professional vendor. Smudges should be cleaned using Terry Cloth if available ❖ Make sure DVD player laser mechanism gets periodically cleaned
Links on the page:	User manual
User Interaction (navigating only or navigating plus opportunity to contribute?)	<p>Navigating only ---</p> <p>Standard Navigation Box to left (used throughout website)</p> <p>Self – Assessment for Quality Control and IT Ministry contact info on bottom</p>
Graphical Elements/Images (description plus file name:	<p>Same images for buttons for 2nd navigational bar: Devices Navigation</p> <div> </div> <p>plus image of DVD player imbedded in text at beginning</p>
Color specs:	Darker blue gutters & outlines (Distinguishable from rest of website), white background, and black text

Storyboard Form

Page Title: TWC Cable TV Box		File name:
Description of Copy text (what the text will accomplish on this page):	<p>This webpage is designed to introduce you to the Cable TV Box. It includes a link to the devices user manual and some quick tips on what to look for and what to avoid while using it. The manual will provide you with instruction on how to use the device's advanced features and its associated remote control.</p> <p style="text-align: center;">TIPS:</p> <ul style="list-style-type: none"> ❖ Makes sure devices are plugged in and turned on before using ❖ Remember to point remote control directly to its device 	
Links on the page:	User manual	
User Interaction (navigating only or navigating plus opportunity to contribute?)	<p>Navigating only ---</p> <p>Standard Navigation Box to left (used throughout website)</p> <p>Self – Assessment for Quality Control and IT Ministry contact info on bottom</p>	
Graphical Elements/Images (description plus file name:	<p>Same images for buttons for 2nd navigational bar: Devices Navigation</p> <div> </div> <p>plus image of Cable TV Box imbedded in text at beginning</p>	
Color specs:	Darker blue gutters & outlines (Distinguishable from rest of website), white background, and black text	

Storyboard Form

Page Title: Apple TV	File name:
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Description of Copy text (what the text will accomplish on this page):	<p>This webpage is designed to introduce you to the Apple TV. It includes a link to the devices user manual and some quick tips on what to look for and what to avoid while using it. The manual will provide you with instruction on how to use the device's advanced features and its associated remote control.</p> <p style="text-align: center;">TIPS:</p> <ul style="list-style-type: none"> ❖ Makes sure devices are plugged in and turned on before using ❖ Remember to point remote control directly to its device ❖ Can also be activated using personal Mac mobile devices. <p>Navigate through Apple TV homepage link for further details.</p>
Links on the page:	<p>User Manual</p> <p>Apple TV Homepage</p>
User Interaction (navigating only or navigating plus opportunity to contribute?)	<p>Navigating only ---</p> <p>Standard Navigation Box to left (used throughout website)</p> <p>Self – Assessment for Quality Control and IT Ministry contact info on bottom</p>
Graphical Elements/Images (description plus file name:	<p>Same images for buttons for 2nd navigational bar: Devices Navigation</p> <div> </div> <p>plus image of Apple TV imbedded in text at beginning</p>
Color specs:	<p>Darker blue gutters & outlines (Distinguishable from rest of website), white background, and black text</p>


Storyboard Form

Page Title: Receiver (sound)	File name:
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Description of Copy text (what the text will accomplish on this page):	<p>This webpage is designed to introduce you to the Receiver. It includes a link to the devices user manual and some quick tips on what to look for and what to avoid while using it. The manual will provide you with instruction on how to use the device's advanced features and its associated remote control.</p> <p style="text-align: center;">TIPS:</p> <ul style="list-style-type: none"> ❖ Makes sure devices are plugged in and turned on before using ❖ Remember to point remote control directly to its device ❖ This is only required if the volume level needs to be further increased through surround sound speakers ❖ Use Standard Mode ("TV") for all devices, but individual settings for enhanced sound if applicable: <ul style="list-style-type: none"> ○ "DVD" – DVD Player ○ "Video 2" – Cable Box
Links on the page:	User manual
User Interaction (navigating only or navigating plus opportunity to contribute?)	<p>Navigating only ---</p> <p>Standard Navigation Box to left (used throughout website)</p> <p>Self – Assessment for Quality Control and IT Ministry contact info on bottom</p>
Graphical Elements/Images (description plus file name:	<p>Same images for buttons for 2nd navigational bar: Devices Navigation</p> <div> </div> <p>plus image of Receiver imbedded in text at beginning</p>
Color specs:	Darker blue gutters & outlines (Distinguishable from rest of website), white background, and black text

Storyboard Form

Page Title: Karaoke Machine	File name:
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Description of Copy text (what the text will accomplish on this page):	<p>This webpage is designed to introduce you to the Karaoke Machine. It includes a link to the devices user manual and some quick tips on what to look for and what to avoid while using it. The manual will provide you with instruction on how to use the device's advanced features and its associated remote control.</p> <p style="text-align: center;">TIPS:</p> <ul style="list-style-type: none"> ❖ Makes sure devices are plugged in and turned on before using ❖ Remember to point remote control directly to its device ❖ Machine requires specialized Karaoke discs
Links on the page:	User manual
User Interaction (navigating only or navigating plus opportunity to contribute?)	<p>Navigating only ---</p> <p>Standard Navigation Box to left (used throughout website)</p> <p>Self – Assessment for Quality Control and IT Ministry contact info on bottom</p>
Graphical Elements/Images (description plus file name:	<p>Same images for buttons for 2nd navigational bar: Devices Navigation</p> <div style="display: flex; align-items: center;">  <p style="margin-left: 10px;">plus image of Karaoke Machine imbedded in text at beginning</p> </div>
Color specs:	Darker blue gutters & outlines (Distinguishable from rest of website), white background, and black text


Storyboard Form	
Page Title: Remote Controls	File name:

<p>Description of Copy text (what the text will accomplish on this page):</p>	<p>This webpage is designed to familiarize you with the remote controls available, which devices that they belong to, and introduces you to “AirPlay.” Apple TV can be used remotely with your personal Mac mobile devices such as iPad and iPhone 4 or later through the software package called AirPlay. The remote controls can be found on the smaller cabinet to the right of the entertainment center. Please put the remote controls back after using them. TIP: If remote control is not working, remember to point it directly to its corresponding device when using it, and always check the batteries if it is still not responding well or at all.</p>
<p>Links on the page:</p>	<p>Apple TV/AirPlay subpage</p>
<p>User Interaction (navigating only or navigating plus opportunity to contribute?)</p>	<p>Navigating only ---</p> <p>Standard Navigation Box to left (used throughout website)</p> <p>Self – Assessment for Quality Control and IT Ministry contact info on bottom</p>
<p>Graphical Elements/Images</p>	 <p>For table – Connect Remote Controls with their Devices</p>


Storyboard Form

Page Title: AirPlay for Apple TV

File name:

Description of Copy text (what the text will accomplish on this page):	AirPlay is a software package that comes with all newer Mac mobile devices that contain iOS 4 (Mac operating system) or later. It allows you to use your Mac devices remotely through the Apple TV device. Click HERE for instructions on how to do so.
Links on the page:	AirPlay tutorial
User Interaction (navigating only or navigating plus opportunity to contribute?)	Navigating only --- Standard Navigation Box to left (used throughout website) Self – Assessment for Quality Control and IT Ministry contact info on bottom
Graphical Elements/Images (description plus file name:	

Storyboard Form	
Page Title: Choosing Correct “INPUT”	File name:
Description of Copy text (what the text will accomplish on this page):	<p>In order to be able to view content from a specific device that is located at the Media Center, you must:</p> <ol style="list-style-type: none"> 1. turn on the TV set 2. turn on the device 3. press the INPUT button on the TV remote 4. press the up or down arrow to select the correct input number that corresponds to the device that you would like to use from the table below 5. press ENTER button after the correct input has been highlighted <p>The content from the device should now be displayed on the TV set. Give it a moment, because some devices take longer to load up. If it is still not working, please check the power connections, remote batteries, and then retry the procedure. If you are still having problems, please seek further assistance.</p> <p>Note: embed table here</p>

Links on the page:	none
User Interaction (navigating only or navigating plus opportunity to contribute?)	<p>Navigating only ---</p> <p>Standard Navigation Box to left (used throughout website)</p> <p>Self – Assessment for Quality Control and IT Ministry contact info on bottom</p>
Graphical Elements/Images (description plus file name:	

Storyboard Form	
Page Title: Getting Further Assistance	File name:
<p>Description of Copy text (what the text will accomplish on this page):</p>	<p>Certain places in this instructional website have prompted you to acquire further assistance. If you do not have the entry level technical skills listed below, please seek assistance from one of your peers before performing your task at the Media Center.</p> <p>If you have used this instructional website and/or the print job aid that is provided for you at the Media Center but are still having difficulty, please seek further assistance from a Technology Ministry member if present. Otherwise, they can be contacted at: web@stnicholaswilmington.org</p>

	<p>You can also try finding other tutorials online through your own self-directed search. There is available instruction online free of charge that covers a broad range of topics. This instruction can come in the form of written instruction from company and other websites, instructional videos on YouTube and other sites, or troubleshooting tips from technology discussion forums. To get an idea of how broad a range such information is available, go to GOOGLE.com and type the phrase “How to make a peanut butter sandwich” in the search field, and then press ENTER. How many tutorials are available?</p> <p>Note: embed list of entry level skills here</p>
Links on the page:	None
User Interaction (navigating only or navigating plus opportunity to contribute?)	<p>Navigating only ---</p> <p>Standard Navigation Box to left (used throughout website)</p> <p>Self – Assessment for Quality Control and IT Ministry contact info on bottom</p>
Graphical Elements/Images (description plus file name:	Include labeled picture of Job Aid

Appendix Z – GOC Parish Council Presentation

UNCW MIT Capstone Project - Microsoft PowerPoint

File Home Insert Design Transitions Animations Slide Show Review View Add-Ins

Clipboard Slides Font Paragraph Drawing

Slides Outline

1 UNCW MIT Capstone Project
For St. Nicholas GOC Parish Council

2 What is UNCW MIT
& Instructional Design?

3 Project Sample Descriptions

4 What Else Is Required

What Else Is Required

- * Approval of Parish Council & UNCW Capstone Panel
- * Define specific needs of St. Nicholas G.O.C.
- * Design & development of appropriate products (2 months)
- * Implementation and evaluation of products (1 month)
- * Journal and submission of final report for defense
 - * Early November deadline

Click to add notes

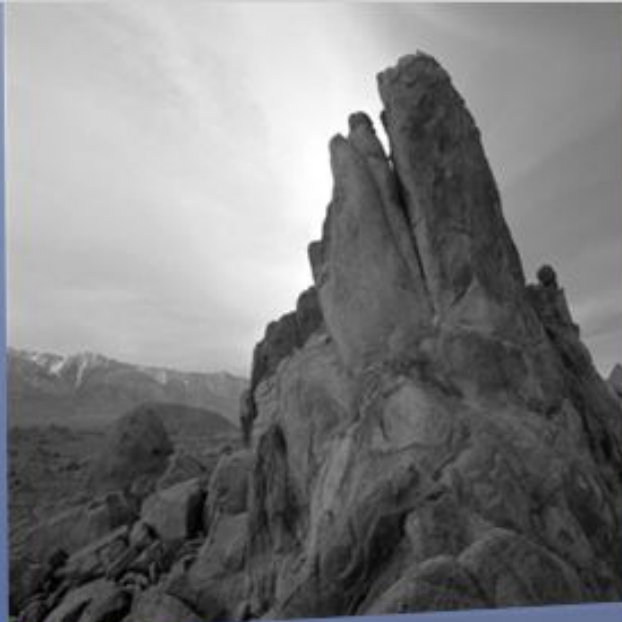
Slide 4 of 4 "Waveform" 94%

Appendix AA – Multimedia and Design Principles

<i>Richard E. Mayer's Multimedia Principles</i>		
Principle	Description	Application
Coherence	Delete extraneous words, sounds, or graphics	An editing process took place throughout the design and development process
Signaling	Highlight essential words or graphics	Font types, word choice, punctuation, and graphics were used
Spatial Contiguity	Place essential words next to corresponding graphics	Labels and descriptions were placed next to graphics with minimal cushion
Temporal Contiguity	Present corresponding words and pictures simultaneously	This was used throughout the CBT and job aid
Segmenting	Present lesson in user-paced segments rather as a continuous unit	This was done by both using a number of subpages on the website, and by segmenting instruction for the interactive demonstrations provided in the CBT
<i>Design Principles by Robin Williams</i>		
Proximity	When items are placed close together to signify one single unit, or far away from each other to signify separate units	This was used both on the website and job where related chunks of instruction were made available on the same page.
Alignment	Aligning items to create a unified appearance or connection between them	In addition to left, middle, and right alignments made available in various software applications, graphics were also aligned in this manner.
Repetition	Repeating visual elements throughout a design in order strengthen unity between them	In the CBT, this was done by repeating the same formats on related webpages, such as with the style sheets for example
Contrast	Creates a visual distinction between elements on a page that are not the same	This was done using additional 3D type graphics for button images, and placing reference images in tables.

These principles were taken from two different text that were part of the UNCW MIT 511 course

Appendix AB – Print Job Aid located at Media Center. It was printed on legal sized paper and used large font to accommodate those with visual impairments, including the elderly.



TV Center Instructional Guide Τηλεόραση κέντρο εκπαιδευτικό εγχειρίδιο

2013 UNCW MIT Capstone Project by Mr. Nick Syropis

This Instructional Guide has been designed for members of the St. Nicholas Greek Orthodox community. It is intended for learners that have some prior knowledge on working with these types of devices. Instruction for further assistance is included if required. --- Αυτός Εκπαιδευτικός Οδηγός έχει σχεδιαστεί για τα μέλη της Ελληνορθόδοξης Αγίου Νικολάου. Προορίζεται για μαθητές που έχουν κάποια προηγούμενη γνώση για την εργασία με την τεχνολογία. Περιλαμβάνεται η διδασκαλία για περαιτέρω βοήθεια.

Table of Contents

Special instructions for further assistance Pg. 1

Ειδικές οδηγίες για περαιτέρω βοήθεια

Instructional Guide directionsPg. 2

Εκπαιδευτικός Οδηγός κατευθύνσεις

What must be known before beginning

Τι πρέπει να γνωρίζει πριν από την αρχή

Choosing a task and equipment

Επιλέγοντας ένα καθήκον και εξοπλισμός

Electronic equipment availablePg. 3

Διαθέσιμο ηλεκτρονικό εξοπλισμό

With and without remote controls

Με και χωρίς τηλεχειριστήρια

Switching back and forth between devicesPg. 4

Εναλλαγή μπρος-πίσω μεταξύ συσκευών

Connecting personal devicesPg. 6

Προσωπική διατάξεις σύνδεσης

Adjusting audio qualityPg. 8

Προσαρμογές για την ποιότητα

For additional guidancePg. 9

Για επιπλέον οδηγίες

Before starting: Πριν ξεκινήσετε:

Specific items to be addressed by the Technology Ministry:

Για περαιτέρω βοήθεια από το Υπουργείο της τεχνολογίας:

- “Input 6” whose port is located on back of TV

για "εισόδου 6", του οποίου το λιμάνι βρίσκεται στο πίσω μέρος της TV

- Internet connectivity issues and freezes

για ζητήματα σύνδεσης σύνδεση internet

- Technical issues or damage with equipment

για τεχνικά ζητήματα ή βλάβη με εξοπλισμό

- Equipment not located at the Media Center

για τον εξοπλισμό που δεν βρίσκονται στο κέντρο TV

- Lack of power or batteries for devices and remotes

έλλειψη δύναμης ή μπαταρίες για συσκευές και τηλεχειριστήρια

Special thanks to:

Θερμές ευχαριστίες στον:

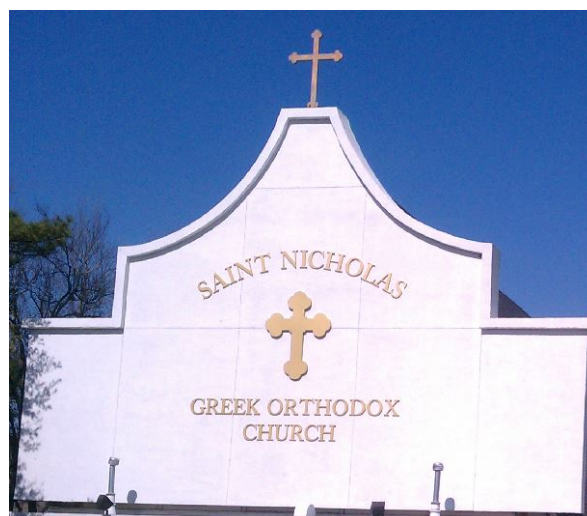
Christina Andreadou

David S. Cribb

Douglas Ivan Prouty

Matthew Fitzgivens

Nancy Markel



Abby Ford

And the St. Nicholas Greek Orthodox Church community!

Και την Κοινότητα Αγίου Νικολάου!

John 4:37

“Thus the saying ‘One sows and another reaps’ is true.”

«Έτσι το ρητό «ένα σπέρνει και θερίζει άλλο» είναι αλήθεια.»

There are more instructions for additional help at the end of this Instructional Guide.

Υπάρχουν περισσότερες οδηγίες για πρόσθετη βοήθεια στο τέλος.

Instructions: This guide has been created to provide simple instruction on how to switch back and forth from different devices, connect your own device, and make adjustments.

Αυτός ο οδηγός δημιουργήθηκε για να παρέχει απλές οδηγίες για το πώς να μεταβείτε μπρος-πίσω από διαφορετικές συσκευές, συνδέστε τη συσκευή σας και κάντε αλλαγές.

Before using this Instructional Guide, you should already know how to turn on devices and use their basic features, connect cables, use your own devices and software, browse through the internet, have some familiarity with Apple TV/AirPlay, and general features for the karaoke machine.

Πριν από τη χρήση this δουλειά βοηθάω, πρέπει να ξέρετε ήδη πώς να ενεργοποιήσετε συσκευές και χρησιμοποιούν βασικά χαρακτηριστικά τους, συνδέστε τα καλώδια, χρησιμοποιήστε το δικό σας συσκευές και το λογισμικό, περιηγηθείτε μέσα από το Διαδίκτυο, έχουν κάποια εξοικείωση με το Apple TV, και πώς να χρησιμοποιήσει το μηχάνημα караόке.

First, choose what you would like to do: Watch a movie, watch a TV broadcast, listen to music, give a presentation, and so on. **Second,** choose the device that will best fit your needs. For example:

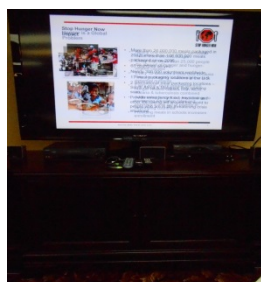
Κατ 'αρχάς, επιλέξτε τι θέλετε να κάνετε: παρακολουθήσετε μια ταινία, να παρακολουθήσετε τηλεόραση, ραδιοφωνική μετάδοση, να ακούτε μουσική, κάνετε μια παρουσίαση, και ούτω καθεξής. **Δεύτερον,** να επιλέξετε τη συσκευή που θα ταιριάζει καλύτερα στις ανάγκες σας. Για παράδειγμα:

Task to be performed	Device that can be used
Καθήκοντος που να γίνει	Συσκευή που μπορεί να χρησιμοποιηθεί
Listening to music – Ακούτε μουσική	Receiver, DVD player, iPod, laptop, Apple TV, karaoke machine, etc.
Giving a presentation – Δίνοντας μια παρουσίαση	VCR, DVD player, laptop, iPad, iPhone, MacBook, Apple TV (AirPlay), etc.

These devices have remote controls:

Αυτές οι συσκευές έχουν επίσης τους τηλεχειρισμούς:

- 1. TV 2. DVD Player 3. Cable Box 4. Receiver**



TV Remote



DVD Player Remote



Cable Box Remote



Receiver Remote



5. VCR**6. Apple TV****7. Karaoke Machine**

Remember to point the remote to its own device when using!

Θυμηθείτε να το στρέψετε σε τη δική του συσκευή εύχρηστο!



The Apple TV device can be controlled by using your iPhone or other portable Mac devices; by the use of the AirPlay app. Η συσκευή της Apple TV μπορεί να ελεγχθεί χρησιμοποιώντας το iPhone σας ή άλλες φορητές συσκευές της Mac χρησιμοποιώντας το app AirPlay.

Choosing & switching between the devices

Επιλογή & εναλλαγή μεταξύ των συσκευών

*Remember to turn the **power** on for TV first.*

Θυμηθείτε να ενεργοποιήσετε δύναμη για τηλεόραση πρώτη.

For a specific device to work and appear on the TV screen, you must **select the correct “INPUT”** using the TV remote control.

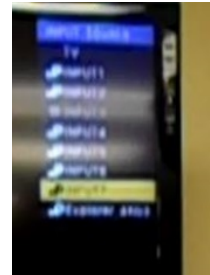
Για μια συγκεκριμένη συσκευή να εμφανιστεί στην οθόνη της Τηλεόρασης, πρέπει να επιλέξετε το σωστό "Input" χρησιμοποιώντας το τηλεχειριστήριο της Τηλεόρασης.

Step #1: Press the “INPUT” button so that input options appear on the TV screen menu. Πατήστε το κουμπί "Εισαγωγή" ώστε επιλογές εισόδου που εμφανίζονται στην οθόνη της Τηλεόρασης.

Step #2: Press the up or down arrow buttons in order to move the highlighted box up or down the menu on the TV screen until you reach the “Input” that you need. Πατήστε το πάνω ή κάτω από τα κουμπιά βέλους για να μετακινήσετε το επισημασμένο πλαίσιο πάνω ή κάτω από το μενού στην οθόνη της Τηλεόρασης μέχρι να φτάσετε την "είσοδο" που χρειάζεστε.

Step #3: Press the “ENTER” button to select your choice.

Πατήστε το κουμπί "ENTER" για να επιλέξετε την επιλογή σας.



“Inputs” and their associated devices

"Εισροών" και τους συνδεδεμένες συσκευές

“INPUT” refers to ports on the TV set where devices can be connected with certain cables. There are **8 total ports**, 4 of which already have devices plugged into them. The other 4 ports are available for other external devices to be connected. The following are the Inputs and their corresponding connected devices. "INPUT" αναφέρεται από λιμένων για την τηλεόραση την ώρα όπου οι συσκευές μπορούν να συνδεθούν με ορισμένα καλώδια. Υπάρχουν 8 συνολικά θύρες, 4 των οποίων έχουν ήδη συσκευές στην πρίζα σε αυτά. Τα άλλα 4 λιμάνια είναι διαθέσιμα για άλλες εξωτερικές συσκευές να συνδεθούν. Τα ακόλουθα αποτελούν τις εισροές και τους αντίστοιχους συνδεδεμένες συσκευές.

Inputs	Previously Connected Devices
Εισόδου	Προηγούμενως Συνδεδεμένη συσκευή
“Input 1”	VCR – Video Cassette Player

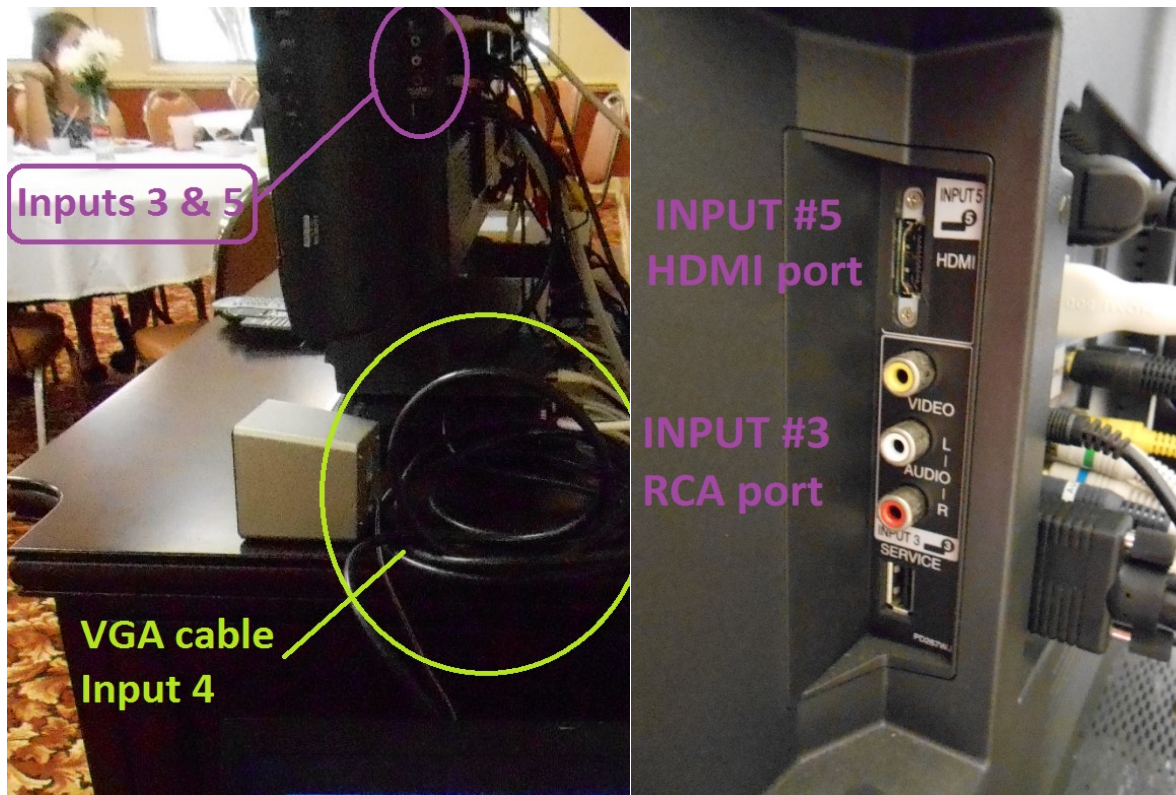
	βίντεο κασετόφωνο
“Input 2”	DVD Player DVD Παίκτης
“Input 7”	Apple TV
“Input 8”	Cable TV Box Κουτί καλωδιακή τηλεόραση

The next section covers the available or open ports (**Inputs 3, 4, & 5**), and the types of cables required to connect external and personal devices. Please remember that **Input #6 requires additional assistance** from a member of the Technology Ministry Team. Η επόμενη ενότητα καλύπτει τις διαθέσιμες θύρες (εισροές 3, 4, & 5), και τους τύπους καλωδίων που απαιτούνται για τη σύνδεση Εξωτερικών και προσωπικές συσκευές. Να θυμάστε ότι το **Input #6** απαιτεί πρόσθετη βοήθεια από ένα μέλος του Υπουργείου τεχνολογία.

Connecting Personal Devices

Προσωπική διατάξεις σύνδεσης

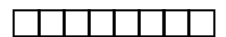
The images below represent the available ports (Inputs 3, 4 and 5) where personal devices can be connected to the TV set, and the types of cables required for each. Note that “Input 4” is a VGA cable. Οι παρακάτω εικόνες που αντιπροσωπεύουν τις διαθέσιμες θύρες (εισροές 3, 4 και 5) όπου προσωπικές συσκευές μπορεί να συνδεθεί με την τηλεόραση, και τους τύπους καλωδίων που απαιτούνται.



For the VGA cable, always remember to connect the headphone jack to the headphone port on your computer, especially if you hear a buzzing noise after connecting your laptop to the TV set.

Πάντα

ακουστικών στον υπολογιστή σας, ειδικά αν ακούτε ένα θόρυβο buzzing μετά τη σύνδεση του laptop σας με τη συσκευή της Τηλεόρασης.

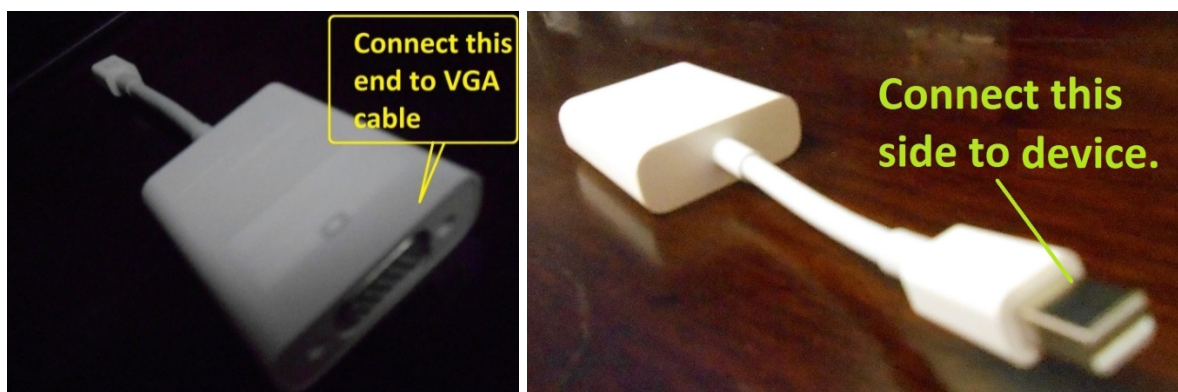


VO

The table below provides a list of types of connections and possible personal devices that can be used with each. Ο παρακάτω πίνακας παρέχει μια λίστα των τύπων συνδέσεων και δυνατό προσωπικές συσκευές που μπορεί να χρησιμοποιηθεί με κάθε.

Type of Connection Τύπος σύνδεσης	Possible Devices Πιθανές συσκευές
RCA port-cable -	Older electronics such as VCRs, DVD players, video cameras, game consoles (Nintendo, Sega, Atari, PlayStation, etc.), and so on. Παλαιότερα ηλεκτρονικά όπως συσκευές VCR, DVD παίκτες, βιντεοκάμερες, κονσόλες παιχνιδιών (Nintendo, PlayStation) και ούτω καθεξής.
VGA port-cable -	PC Laptops and computer devices. PC Laptops και συσκευές υπολογιστών.
HDMI port-cable -	Blue-ray player, HD DVD player, Digital camcorders and cameras, modern personal computers, Tablet computers, some modern mobile phones, etc. Παίκτης Blue-ray, HD DVD player, ψηφιακές βιντεοκάμερες και φωτογραφικές μηχανές, σύγχρονους προσωπικούς υπολογιστές, υπολογιστές Tablet, κάποια σύγχρονα κινητά τηλέφωνα

Keep in mind that Mac devices can also be connected to the VGA cable/port (“Input 4”) by using the adapter that is shown below, and connecting from VGA cable to the port in your Mac device. Λάβετε υπόψη ότι Mac συσκευές μπορούν επίσης να συνδεθούν με καλώδιο/θύρα VGA ("4 εισόδου") χρησιμοποιώντας τον προσαρμογέα που φαίνεται παρακάτω, και τη σύνδεση από το VGA καλώδιο με το διανομέα λιμάνι για φορητό υπολογιστή.



Adjusting Audio Quality

Both audio level and quality can be boosted by using the audio receiver that is located inside the cabinet under the TV set, behind the cabinet door. Με τη χρήση ήχου δέκτη που βρίσκεται στο εσωτερικό του Υπουργικού Συμβουλίου, κάτω από το TV που είναι ουδέτερος ήχου επίπεδο και την ποιότητα.



Using it activates the surround sound feature and its additional speaker system located in the seating section that is in front of the Media Center. Please use your own judgment as to whether or not using it is necessary. Το ενεργοποιεί το χαρακτηριστικό ήχο surround και το επιπλέον ομιλητής σύστημα που βρίσκεται στην ενότητα καθίσματα που είναι μπροστά από το κέντρο της TV. Θα πρέπει να χρησιμοποιήσετε τη δική σας κρίση ως προς το κατά πόσον ή όχι χρήση του είναι αναγκαία.

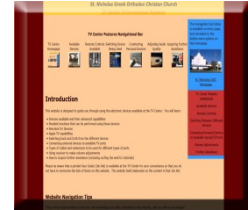
Choosing Correct Receiver Mode	
DEVICE OPTION	MODE
Universal Setting for all devices	“TV”
DVD Player	“DVD”
Cable TV Box	“Video 2”

Getting Further Assistance

You are encouraged to get more instruction for the Media Center by visiting St. Nicholas GOC's online module at:

Σας συνιστούμε να πάρετε περισσότερες οδηγίες για το Center TV με την επίσκεψη σε απευθείας σύνδεση μονάδα του Αγίου Νικολάου της Οργανωτικής Επιτροπής στη διεύθυνση:

<http://arcm101.uncw.edu/ns7902/caps/>



In addition, please be encouraged to ask others around you for further assistance if required.

Some may know the answer to your question, and you may be helping each other out in the process. Επιπλέον, παρακαλούμε να ενθαρρύνονται να ζητήσει από τους άλλους γύρω σας για περαιτέρω βοήθεια εάν χρειαστεί. Ορισμένοι μπορεί να γνωρίζουν την απάντηση στην ερώτησή σας, και μπορεί να βοηθήσει ο ένας τον άλλον στη διαδικασία.



Last but not least, for further technical assistance, please contact one of the parish Technology Ministry members. You can email the ministry leader at

web@stnicholaswilmington.org For more immediate concerns, you can call the office at

(910)392-4444. Τελευταίο αλλά όχι λιγότερο σημαντικό, για περαιτέρω τεχνική βοήθεια, παρακαλούμε επικοινωνήστε με ένα από τα μέλη της ενορίας Τεχνολογίας του Υπουργείου. Μπορείτε να επικοινωνήσετε με την επικεφαλής του υπουργείου στο web@stnicholaswilmington.org Για πιο άμεσες ανησυχίες, μπορείτε να καλέσετε το γραφείο στο (910) 392-4444.



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