An Ugly Duckling Tale:
The Transformation of Monotonous and Tedious Instruction

Synopsis

In responding to several negative employee complaints about its online orientation instructional modules, an Internet streaming company's training department needs to redesign this existing instruction. With the intent of reducing this apparent employee frustration, Shelley Springer, the Training & eLearning Director must determine an effective and elegant design solution with an assortment of multimedia tools.

Background Information

Digital Audio and Video Streaming (DAVS) is a company that specializes in audio and video streaming. Starting over nine years ago, Steve Reid and Sophie McGoldrick, DAVS co-founders, started producing audio podcasts of literary, theatrical, and other fine arts productions. DAVS now specializes in producing a variety of digital audio and video productions for a variety of areas. DAVS members are from the United States, Canada, Latin America, European Union, Australia and New Zealand. At the end of the last fiscal year, DAVS reported that it had more than fifty thousand streaming memberships.

In addition to their original audio streaming podcasts, DAVS produces audio and video learning courses, books instructional DVDs, spoken-word presentations, live music concerts and interviews with authors and musicians. DAVS also recently added their own iPhone App and Android App. Overall, DAVS publishes more than 2500 productions and their library has grown to over 750,000 downloadable tracks. DAVS members are encouraged to submit their own works by submitting either a RSS or Atom feed URL. Their collection is organized according to the following categories:

- Business & Economy
- Digital arts
- Education
- Fine arts
- Food & Culinary Arts
- Health & Medicine
- Music
- News & Politics
- Pop Culture
- Religion & Spirituality
- Science
- Sports & Recreation
- TV & Film
- Technology

As stated on their website, technological innovation almost unilaterally drives the growth of DAVS and the goal is to offer customers access to all of their products. DAVS is considering offering an individualized shopping experience for their customers where they can make informed buying decisions. They also are considering

adding DAVS Radio where they will sponsor several curated programs. In fact, DAVS sponsors several blogs and a YouTube channel that review products that be purchased via the DAVS site.

Core values

At the onset of incorporating their business, Digital Audio and Video Streaming committed to the following three core values that ultimately drive their business decisions and strategic planning.

Our customers: DAVS values our customers and are committed to providing them with quality products. Each of our productions are meticulously produced and packaged and our customers have our pledge of 100% Satisfaction Guarantee. We will work vigorously to earn and keep our customers' trust. The focus is on our customers and everything else follows. There is no question what is best for our customer is also best for DAVS.

Our innovation and quality: In developing DAVS products, we expect innovation, invention, and quality from each production. DAVS should be on the "cutting edge" by always looking for new ideas and topics. We should not be bounded by our limitations, but be strengthened by our possibilities. We should continually insist on the highest standards and realize that our reputation depends on these standards and the high quality of DAVS products.

Our community: DAVS is committed to the community that we work and live in and to the broader communities that we interact with, both locally and globally. The DAVS community is dedicated to new ways of connecting within our community. We will continually participate in community outreach projects, such as Habitat for Humanity, that benefit DAVS, employees and our customers.

As noted in their current mission statement, DAVS remains committed to "achieving excellence driven by the spirit of innovation."

Overall structure

There are over seventy-five employees who currently work at Digital Audio and Video Streaming. There are four main divisions within DAVS including: Organizational Effectiveness and Leadership Development, Operations and Customer Service, Legal, and Finance. Steve Reid is a Co-founder & Chief Executive Officer. In the DAVS senior management team, there are a Chief Product and Content Officer, a Chief Marketing and Communications Officer, a Chief Financial Officer and a General Counsel. Rose Samuelson is the Senior Vice-President of the Organizational Effectiveness and Development division. Within the Organizational Effectiveness and Development division, there is a Training & eLearning Director and a Human Resources Director. Shelley Springer, the Training & eLearning Director, supervises two Training Developers and one eLearning Developer.

DAVS is dedicated to creating a work environment that nurtures creativity, individual expression, and open communication amongst all employees. It offers the following employee benefits, including quality health and dental benefits, compensation programs for assisting employees pursue higher education opportunities,

scholarships for Employee Dependents a profit sharing, a 401K plan a Flexible Spending Account (FSA), Employee Assistance Program, disability and life insurance, and selected employee discounts.

Training and eLearning department services

As stated on their respective webpage, Digital Audio and Video Streaming's Training and eLearning department serves all of the training and human performance improvement needs of DAVS employees. These workshops, training modules, and related initiatives enable all of these employees to work collaboratively towards meeting DAVS' mission and core values. Using contemporary computer-, video-, and web-based training tools, each of the training programs deliver training modules that give employees hands-on practice in "real world" settings and contexts. The training opportunities include the following services:

- Performance Management Training sessions
- Writing effective Business correspondence
- Lunch and Learn discussions
- Just-in-time mini workshops (Recent topics included: Implementing sound instructional systems development principles, e-Learning applications and Section 508 compliance)
- Learning solutions workshops (Recent topics included: Synchronous and asynchronous learning solutions and Mobile learning solutions)
- Webinars

Shelley Springer, the Training & eLearning Director recently discussed the need of enhancing its department training offerings by including virtual computer-based training and interactive training workbooks for all DAVS employees and divisions.

Case study characters

Training & eLearning Director: Shelley Springer was a Film studies and production major and subsequently her BA degree from a local university. Shelley originally was contracted to produce and record digital video created by independent filmmakers. She subsequently was hired full-time to work by Human Resources as a trainer and to provide in-house training workshops on digital video and audio production.

Training Developers: Matthew Davis and Alice Browne are the two DAVS training developers. Matt has a master degree in Instructional Design from a local university and is a local musician. Alice has a BA degree in Theatrical Arts and currently is working on her master degree in Instructional Design.

eLearning Developer: Jesse Hitchcock has a BS in Computer Science with a concentration in web design and development. Jesse also specializes in digital audio and video techniques. Being well versed in HTML 5 scripting was definitively a plus in being selected for this position.

Senior Vice-President, Organizational Effectiveness and Development: Rose Samuelson was one of the original employees when DAVS started over nine years ago. Rose's specialization initially was sound design and the production of media rich instruction

including Flash, podcasts, and video-based presentations. These skills made Rose a valuable team player. Rose originally was responsible for all audio production including music recording, sound design, sound for picture, radio spots, sound system designs, implementations and training for a variety of projects.

Relevant documents

Training and eLearning Director job description: Overall, the Training and eLearning Director supports and facilitates the management and planning of all efforts associated with the Training and eLearning department by interacting with senior management, project team members, and the client to meet customer and company expectations by performing the following duties:

Primary responsibilities:

- Develop and manage scope of work projects within department area by setting effective expectations, communications, change management processes, budget management, and overall understanding of project and initiative needs.
- Manage multiple priorities while actively supporting the team's efforts via the project plan, time management (activities & task planning), ongoing maintenance, and other planning support.
- Manage the establishment of ISD principles in planning, analysis, design, development, deployment and evaluation of learning materials.
- Lend support to team members as necessary during project implementation. Supports and mentors the development of team members from a professional and technical level.
- Maintain routine communications with the senior management concerning all aspects of a particular project.

Skills and qualifications:

- Bachelor's degree and a minimum of five years experience in a training design and development position required, Master's degree in relevant discipline with adult learning, organizational development or instructional design emphasis preferred.
- Minimum of 3 years of project management and curriculum/course development experience within a digital technologies environment highly preferred.
- Strong decision making skills, including the ability to analyze problems, investigate solutions, and utilize independent judgment.
- Ability to using collaboration tools (such as SharePoint and Microsoft LiveMeeting), eLearning development and management tools easily.
- Minimum of 5 years demonstrated experience of current and emerging instructional, digital and information technologies.

Training Developer job description: Overall, the Training Developer is responsible for conducting the necessary training needs analysis and development of training materials by performing the following duties:

Primary responsibilities:

- Work in collaboration with subject matter experts and department managers to analyze

learning and performance needs of employees. Partner with subject matter experts to analyze current situation and to design, develop, implement and evaluate training programs to improve performance and productivity.

- Analyze content, target audience, job tasks, and learner environment to identify appropriate instructional strategies and define learning objectives
- Create training modules and curriculum to support business operations by applying appropriate and innovative instructional design methods. Develop training materials for instructor led training sessions.
- Develop training workshops and manuals that represent effective business practices.
- Manage course design and review process using established evaluation guidelines.
- Provide substantial knowledge and skills in adult learning styles, verbal and written communication, web-based authoring tools, application of all ISD model phases, technology based training solutions.
- Evaluate third party training products and make purchase recommendations. Serve as point of contact for making external purchases.

Required skills and qualifications:

- Bachelor's degree in Instructional Design or an equivalent combination of education and/or related work experience; Master's degree in e-Learning instructional design, instructional design/technology preferred.
- Three to five years of multimedia instructional design, including needs analysis, design/development, delivery and evaluation preferred.
- Proven knowledge of most current instructional design principles and adult learning theory. Experience working with instructional design and adult learning and training methodologies.
- Must have proficient computer and instructional technology skills specifically associated to software including but not limited to Dreamweaver, Contribute, Flash, Office suite, and Captivate. Digital audio and video technologies experience is a plus!
- Strong creative writing skills and editing skills that allows for the development of engaging and dynamic content.
- Ability to use storyboards and/or instructional outlines to design and develop courses with a high degree of independence. 2+ years experience developing technical training manuals preferred.

eLearning Developer job description: Overall, the eLearning Developer is responsible for conducting the necessary training needs analysis and development of web-based training materials by performing the following duties:

Primary responsibilities:

- Work in collaboration with subject matter experts and department managers to analyze learning and performance needs of employees. Partner with senior managers and other Training Specialists to research and implement web-based technologies.
- Assess and analyze the eLearning and performance needs of target audience.
- Create e-learning modules and curriculum to support business operations by applying

appropriate and innovative instructional design methods. Convert existing instructor-led material to an online or blended delivery format.

- Develop eLearning training workshops and manuals that represent effective business practices.
- Manage course design and review process using established evaluation guidelines.
- Provide substantial knowledge and skills in adult learning styles, verbal and written communication, web-based authoring tools, application of all ISD model phases, technology based training solutions.

Skills and qualifications:

- Bachelor's degree in e-Learning or Instructional Design or an equivalent combination of education and/or related work experience; Master's degree in e-Learning instructional design, instructional design/technology preferred.
- Three to five years of multimedia instructional design, including needs analysis, design/development, delivery and evaluation preferred.
- Proven knowledge of most current instructional design principles and adult learning theory. Experience working with instructional design and adult learning and training methodologies.
- Must have proficient computer and instructional technology skills specifically associated to e-Learning software including but not limited to Dreamweaver, Contribute, Flash, Office suite, and Captivate. Digital audio and video technologies experience is a plus!
- Strong creative writing skills and editing skills that allows for the development of engaging and dynamic content.
- Ability to use storyboards and/or instructional outlines to design and develop courses with a high degree of independence. 2+ years experience with Virtual Training preferred.

Recent letter to DAVS shareholders: Highlights from a recent shareholder letter includes the following quotes:

- *The opportunity for digital audio and video streaming continues to be compelling and advantageous. With our increasing market share of digital streaming products, DAVS is the acknowledged leader of this emerging technology.*
- *During the past year, particularly in Q2, we grew faster than expected in streaming memberships. We predict that this aspect of our services will continue to grow in the upcoming year.*
- *We continue to create profits through working together creatively and efficiently.*
- *We are firm believers in the long-term interests of all of our shareholders. It is no question if we do our jobs right, today's customers will buy more DAVS products and services tomorrow.*

Case Study

Ever since last week's meeting with the DAVS senior management, which included Rose Samuelson, Senior Vice-President, Organizational Effectiveness and Development, and Steve Reid, DAVS CEO, Shelley Springer, the Training and eLearning Director has been preparing for her own upcoming weekly departmental

meeting. During this senior management meeting, Shelley received several negative DAVS employee complaints about the online orientation instructional modules. All of this feedback led Rose Samuelson to ask Shelley and her Training and eLearning departmental staff to re-evaluate and redesign these orientation modules. As noted at her individual follow-up meeting with Rose, the first task is to establish an overall implementation plan to address these complaints.

When Shelley reviewed her meeting notes, she recalled that a former DAVS employee, who she worked with in the Training and eLearning department, completed a majority of this training. She remembered that the online training modules (see an orientation module in Appendix A) were very straightforward, lacked any learner interaction, did not include any images, and referred to acronyms (e.g., PGM) that may be difficult to understand. This former trainer also created training workshops that exclusively relied on PowerPoint presentation slides (see a PowerPoint slide example in Appendix B). As one DAVS employee critique noted, "She would present multiple slides of information from a PowerPoint presentation that was related to a training topic without interacting with the audience. The presentation was very slow and lacked the interaction that is often needed to maintain the attention of employees. I honestly dreaded attending these *mandatory* trainings."

Shelley now knows that her Training and eLearning department team must determine an *elegant* and *creative* solution with a robust incorporation of multimedia tools with the intent of reducing this apparent employee frustration with these orientation modules. Shelley Springer knew that she definitively was going to use the ARCS model (Keller, 1987) as an overall design principle. Even though she never received a formal degree in Instructional Design and Technology, Shelley attended a John Keller ARCS workshop during a conference and promptly used this model as a way to design effective training modules. She continually questions whether a particular module is gaining learners' attention, showing relevance, gives learners confidence and satisfaction in completing a particular module. In fact, Shelley keeps a figure of the ARCS model on her desk that helps reminds her of these principles.

Creativity in instructional design

In addition to this reliance on the ARCS model, Shelley also recalled reading recent articles related to the relationship between creativity and instructional design. As noted by Clinton and Hokanson (2012), "the field of instructional technology has tended to give little or no formal treatment of the importance of creativity in instructional design" (p. 111). Apparently, there is a conflict between the craft/art approach and the scientific approach to instructional design processes. Hokanson, Miller, & Hooper (2008) refer to these different approaches as the Instructional Engineer (scientific), the Instructional Craftsperson (craft), and the Instructional Artist (art) in describing a "new conceptualization of the processes and methodologies of instructional design" (p. 36). McDonald (2011) also refers to this additional craft and artistic emphasis as the "creative spirit of design".

There is no doubt. given Shelley's fine arts background, she is inclined to think of herself as an Instructional Artist or at least adopt an Instructional Craftsperson perspective. Through "playful experimentation" and continually asking how to improve upon an existing design, Shelley conceives as designing instruction as one of Davies' (1978 as cited in McDonald 2011, p. 53) chess game. That is, in designing

effective instruction, there is no set of planned actions, but "the order, and manner, [in which design skills are used] depends upon the character of the problem, and the aim in mind. There is no one best way, and no one way of proceeding. Neither is there one optimal solution. Everything depends upon the situation, and the skills available (p. 22-23)". To adopt this perspective, instructional designers need to remain flexible by not incorporating formulaic routines that can be applied to the design of *all* instructional modules, but to consider all innovative approaches and emerging technologies in redesigning these orientation modules. With this perspective and her well-used ARCS model figure, Shelley felt ready to meet with the other DAVS Training and eLearning developers.

Possible innovative multimedia solutions

Shelley and her Training and eLearning team had a very productive meeting. In fact, this meeting lasted twice as long as a normal department meeting and it also included a few follow-up emails between Shelley and her staff. The following possible approaches in redesigning the existing orientation modules were discussed:

Online tools: A few online tools were discussed during the meeting. Jesse Hitchcock, eLearning Developer mentioned that he reviewed some very effective multimedia online modules that were constructed using Flash stop motion animation and simple interactivity such as roll overs, click to reveal and with voice narration. At the end of each activity, learners completed an online self-assessment on whether he or she met a particular competency or not. He noted that these modules were developed using iPhoto, Adobe Photoshop, Flash, Audition, and Illustrator. Alice Browne, one of Training Developers recounted where she reviewed a set of interactive web pages with regards to human anatomy. For example, learners could point their mouse at the structures in the human eye. When the mouse hovered over a feature, a pop-up window provided detailed information about the function of the structure. Then, learners completed an interactive quiz where text-based questions reviewed the feature of the eye, and allowed students to test their current level of understanding in a self-paced environment.

Shelley also received a follow-up email from Rose Samuelson. She advised Shelley to take a look at Articulate (www.articulate.com). Rose noted that the proposed online orientation modules could use Articulate Engage Tabs that are aligned with each objective within the module. The Engage interaction can chunk and organize the content for each of the modules. Then, within Articulate, there can be graded quizzes given at the end of each review session. This would provide the proper feedback for the Training and eLearning department and learners. It also would indicate to the learners, which content needs to be examined and utilized.

Video: The Training and eLearning team all agreed that video could definitively enhance the existing orientation modules. Incorporating relevant video clips can enhance what Rose Samuelson, Senior Vice-President referred to as the "rather long and boring, legalese infused" existing training modules. This would transform these modules into something engaging, relevant, and useful to employees. The team also decided that they would investigate other video enhanced technologies, such as video mashups and other interactive technologies, such as Glogster (www.glogster.com) and VoiceThread (http://voicethread.com/).

Blogs: During the meeting, Matthew Davis, a DAVS training developer, talked about a recent presentation at a Instructional Design and Technology conference that he recently attended. In this presentation, a instructional technology consultant at a community college discussed how they augmented their face-to-face trainings. Learners still attended the required two-hour training session, but then could continue to participate and ask specific questions about the specific training topic on a blog. Learners also now had the opportunity to search the blog for just-in-time training materials (both print and video) or post questions to colleagues and administrations through the dedicated blog.

Virtual worlds and agents: During the meeting, Shelley was advocating that the team consider using virtual worlds, such as Second Life and agents for these orientation modules. Second Life can be used to build specific scenarios that are relevant to particular training topic. Virtual agents can be created in order to represent a particular perspective or principle, such as appropriate business ethics. She recently read Veletsianos' (2009) article on virtual agents and noted the following quote, "Pedagogical agents, virtual characters employed in educational settings for instructional purposes, interact with learners using a range of text-based and audio-based communication" (p. 345). She thought that learners could connect with a particular virtual character with regards to a particular topic. After learning about Articulate, she thought that the department could combine these virtual worlds and agents with corresponding quizzes.

Podcasts: Though podcasting may be considered an "old" technology, the team unanimously thought that they should strongly consider creating podcasts on regular basis. After all, DAVS was originally created based on podcasting. The Training and eLearning department can simply add their own category of podcasts.

Mobile learning: During the senior management team meeting, Rose Samuelson, Senior Vice-President, Organizational Effectiveness and Development, advocated the use of mobile technologies. She quoted from Shacklett's (2011) article entitled, *Mobile Technology Hits the Road* by noting that mobile technologies have "given rise to information access from any location and at any point in time (p. 32). Rose also sent Shelley a few follow-up emails by noting that iPads and similar mobile technologies are becoming more prevalent. In another email, she referred Shelley and the other developers to an article that described how a group of developers created an iPad program that help support the sales team while on a customer visit. This application allowed for communication via a two-way camera with the sales staff and the trainers, as well an extensive database of known sales best practices.

Case Study Challenge

The primary *challenges* that Shelley and the department face are:

1) Enhancing the current and boring online orientation modules and corresponding PowerPoint presentations.
2) Investigating the various current and emerging multimedia technologies that could improve existing instruction.
3) Proposing an implementation plan that incorporates some or all of the technologies to the DAVS senior management team.

Discussion Questions

Respond to the following Discussion questions with regards to this case study:

1) Consider Shelley's emphasis on Keller's ARCS model and the recent discussion on creativity in instructional design. How does the ARCS model influence your own instructional design and multimedia production activities? How creative are you in completing these respective activities as an instructional designer?
2) Identify all of the main stakeholders (e.g., DAVS CEO, Senior Vice-President, Organizational Effectiveness and Development, DAVS employees, etc.) within the DAVS hierarchy associated with this case study. Discuss their vested interest in the revised online orientation modules.
3) In reviewing the various current and emerging multimedia technologies discussed in this case study, select one of these technologies and describe how the particular technology could enhance the existing DAVS online orientation modules.
4) Taking into account the possible multimedia technologies discussed in this case study and Shelley's anticipated implementation plan, create a corresponding list of recommended instructional strategies that would be appropriate for adult learners, such as DAVS employees.

References

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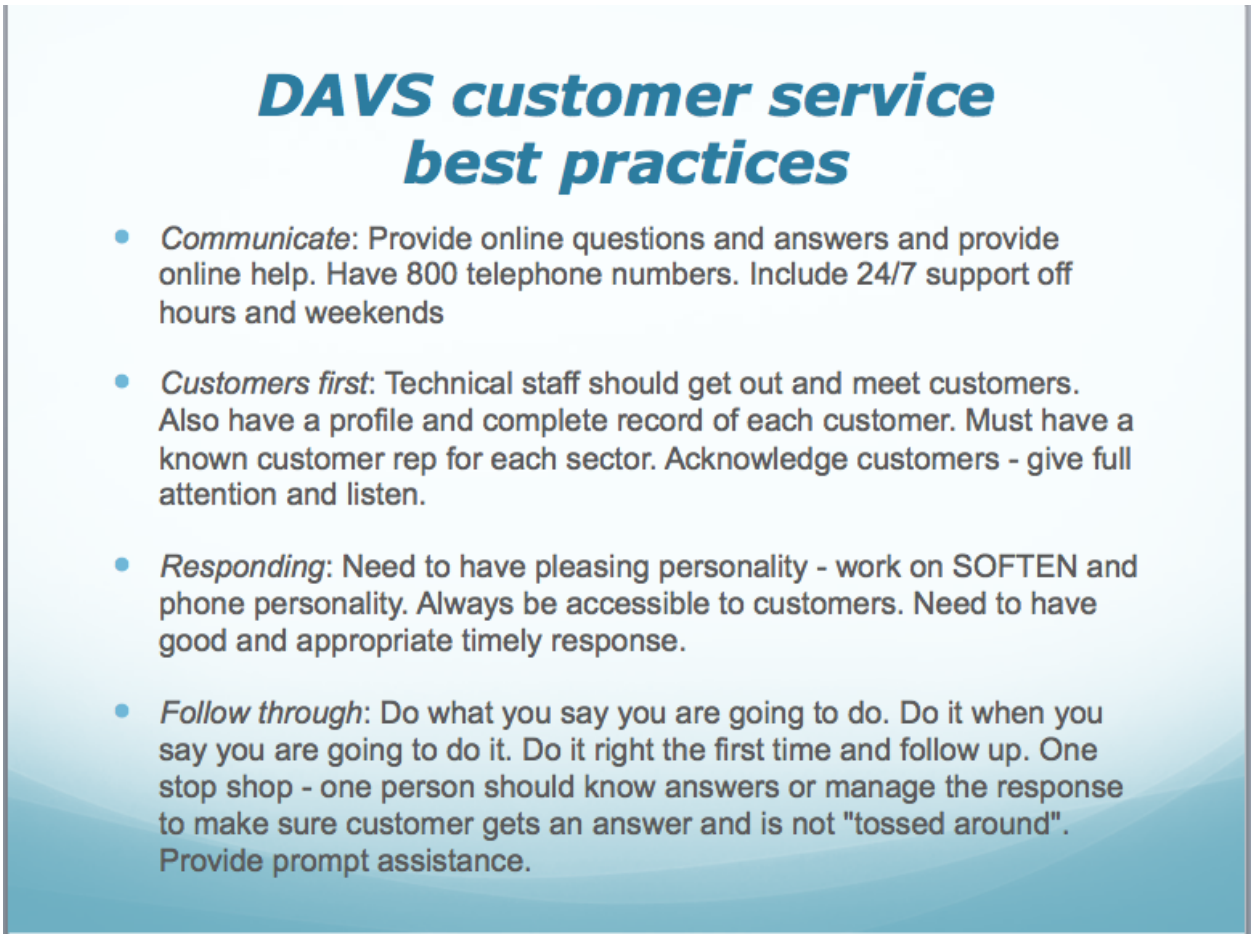
Appendix A

DAVS online inventory orientation

- Click on the *DAVS* icon on your Desktop to login.
- Please use YOUR OWN login name and password. As you know, this cannot be shared with anyone else. *Note: The login name and password are case-sensitive. Make sure you are using only lower case when logging in. You will have to change your password periodically. For log-in or password questions, contact DAVS Network technician ntechnician@davs.com.*
- You may get a pop-up saying "your login files need to be updated". Click "OK" and let the update run. This may take a few minutes. You will then need to restart computer by clicking on the icon and logging-in again.
- After you have logged in, you will go to PGM icon at the top, above the toolbar. Click on START. This will give you access to the DAVS programs database information. From this initial screen, you can retrieve most of the information you will need concerning DAVS products.
- At the top of the screen known as the Address Bar, you can click on the for MNEMONIC (QUICK ACCESS) button. If you know the abbreviation (mnemonic or may be labeled QUICK ACCESS) of particular product category you want to go, you can simply type it in here (i.e. SPT_REC or Sports and Recreation) and click "GO" or press enter. *Note: Mnemonics indicate the common letters of a particular category. You can either type the mnemonic (not case sensitive) in that address bar or go through the module, folder, sub-folder and screen by clicking on the appropriate folders/icons on the Tree Menu Panel. If you hold the mouse pointer over the icon without clicking, a call box will appear explaining the category of the program.*
- You will typically use SAVE and CANCEL to maneuver between screens in the DAVS system. You will get a pop-up Alert AFTER you click on SAVE or CANCEL asking you what you want to do. You must indicate whether you want to UPDATE (save the changes you made), CANCEL (exit a screen without saving), or RETURN (return to the screen you were just in). *Note: When you begin working with screens and you cannot view the entire screen because part of your Tree Panel Menu is showing, click the Tree icon once to hide the menu.*
- You can retrieve customer data several ways in the Customer LookUp box. This box will pop up after you type in the MNEMONIC (QUICK ACCESS) and click "GO" or press enter. You will need to enter the following information:
  - NAME:
  - Type in the full name: (Barack Obama) or Type in just the last name: (Obama) or Type in a few letters of each name: (Bar Oba)

  - CUSTOMER or VENDOR #: Type the full number without dashes or spaces.
  - SHORTCUT: If you have been working with a customer and cancel or save out of a screen but need to bring that same customer back up, you may type "@" in the Customer Lookup box and press enter or click "OK". The information on the last customer you were working with will come up on the screen.
- When you search for a customer by name, you will typically receive a list of options.
- You may see a Resolution Screen. This will also occur when you search for a customer with the same last name or any other product with more than one option.
- Once you have selected the option you need, the screen will appear with the information you selected. If you leave that screen, but wish to continue working with the same customer, remember the shortcut of "@" in the Customer LookUp box. This will bring up the last customer you had up on screen.

Appendix B


DAVS customer service best practices
Communicate: Provide online questions and answers and provide online help. Have 800 telephone numbers. Include 24/7 support off hours and weekends
Customers first: Technical staff should get out and meet customers. Also have a profile and complete record of each customer. Must have a known customer rep for each sector. Acknowledge customers - give full attention and listen.
Responding: Need to have pleasing personality - work on SOFTEN and phone personality. Always be accessible to customers. Need to have good and appropriate timely response.
Follow through: Do what you say you are going to do. Do it when you say you are going to do it. Do it right the first time and follow up. One stop shop - one person should know answers or manage the response to make sure customer gets an answer and is not "tossed around". Provide prompt assistance.