Digital Literacy

Project Beginnings

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Introduction

Shortly after beginning the MA TESOL program at Portland State University, I discovered a passion for issues surrounding language identity. When I began tutoring two emergent readers at the Mid-Valley Literacy Center, I observed learners struggle with literacy identity too. Concurrently, I pursued another interest in how the application of computers, technology, and social media is developing in the language classroom and broader educational settings. I found that through technology new concepts surrounding the construction of language and literacy identity were emerging.

The fall of 2011, I approached Steve Reder, the lead investigator of the Language, Literacy, and Technology Research (LLTR) Group at PSU about implementing the Learner Web's Digital Literacy Learning Plans at the Mid-Valley Literacy Center where I was already tutoring. Learner Web provides individually paced, tutor-facilitated instruction. The content of the Digital Literacy Plans includes basic computer skills and broadband consumer education. By implementing Learner Web's Digital Literacy Plans, I was able to bring together several of my interest areas Now, I have had the opportunity to combine my experience with Learner Web and my training in technical communications by developing an Implementation Guide for Learner Web's Digital Literacy Plans as my cumulative experience project.

Background

Learner Web is a computer-based educational platform that offers individually paced instruction through on-site teachers and tutors as well as providing the opportunity for learners to work autonomously. Learner Web has been developed and is hosted by the Language, Literacy, and Technology Research (LLTR) Group at Portland State University. Three years ago the Learner Web team began a new project funded through the U.S. Department of Commerce's Broadband Technology Opportunities Project (BTOP). BTOP was a multi-billion dollar initiative with the three project categories: Comprehensive Community Infrastructure, Public Computer Centers, and Sustainable Broadband Adoption. Each project category had hundreds of contributing organizations with Learner Web being only one of the hundreds working on the Sustainable Broadband Adoption. Thus, the Language, Literacy, and Technology Research Group (LLTR) in the Applied Linguistics Department at Portland State University (PSU) initiated the Digital Literacy Partnership which began developing the content, piloting the Digital Literacy Learning Plans, and planning for future sustainability.

Learner Web's Digital Literacy Learning Plans are designed to be self-paced and tutor-facilitated. They entails three components: Basic Digital Literacy, Consumer Education, and Tutor Training. The LLTR group partnered with other organizations to help with the development of the Digital Literacy Project. These include the Minnesota Literacy Council, which is responsible for much of the learner content and ProLiteracy Wordwide, which developed the tutor training. PSU served as the project lead and provided web hosting for the program. The goal of the Digital Literacy Partnership is to "allow 23,538 vulnerable adults to move from being 'new-to-broadband' users to 'broadband-ready' users," (The Learner Web Partnership, 2013). To achieve this goal, the Digital Literacy Learning Plans were implemented with organizations in Minnesota, New York, New Orleans, California, South Texas and Central Texas.

Local Digital Literacy Development

In January of 2012, Oregon was added as I introduced Digital Literacy Project to the Mid-Valley Literacy Center in Keizer. The Mid-Valley Literacy Center (MVLC) serves the same low-income, low-literate, ESOL, and other vulnerable populations that the Sustainable Boadband Adoption category within BTOP targeted. When I approached the Director, Vivian Ang, with the idea, she was acquiring computers and exploring ways to provide basic computer skills for her students. I arranged for us to meet with Drew Pizzalato and Natalie West, who were working with the Learner Web Digital Literacy Partnership Next, I presented the Digital Literacy Learning Plans to her new tutors at the MVLC's tutor training. Among the attendees were several individuals who worked for the Marion County Sheriff's Parole and Probation department who were then interested in using the Learner Web Digital Literacy Learning Plans to supplement the GED tutoring they were being trained to offer their clients.

Several months later, Clara Ellis, who has also worked with Learner Web, and I followed up with the Sheriff's Department to gain feedback on how Learner Web's Digital Literacy Learning Plans were working for them and ask how their educational efforts were progressing. In this discussion we learned about the local non-profit organization of Marion County Re-Entry Initiative, their working relationship with the sheriff's department and their primary program, the DeMuniz Pine St. Resource Center. Following the fall Digital Literacy Partners' meeting later in the fall, I approached the director of the DeMuniz Pine St Resource Center, Craig Bazzi, who was delighted for the opportunity to implement the Digital Literacy Learning Plans.

Digital Literacy Expansion

In the fall of 2012, the Digital Literacy Partners met in Portland to share the lessons each had learned over the last couple of years regarding Digital Literacy implementation and to discuss how best to expand the Digital Literacy Learning Plans to make them accessible on a national level. Many ideas were shared, notes taken and two sets of posters were created by small groups. The first identified what a community-based organization (CBO) needs in order to implement the Digital Literacy Learning Plans. The second was for brainstorming ideas on how to expand the Digital Literacy Learning Plans. Out of these discussions emerged recommendations for how new Community Based Organizations (CBOs) could most efficiently implement the Digital Literacy Learning Plans.

Several who have worked on and are familiar with the Digital Literacy Learning Plans are now preparing material to be part of a national marketing campaign. Learner Web along with other, comparable, digital literacy providers like Connect 2 Compete, has been invited to participate. The Digital Literacy Implementation Guide is part of that effort and will describe what is recommended for a CBO to implement using the Digital Literacy Learning Plans.

My Project

The core of my cumulative experience project is to develop a Digital Literacy Implementation Guide to provide CBOs with necessary information and support for the successful implementation of Learner Web's Digital Literacy Learning Plans. The Implementation Guide is divided into three separate modules. The first module, "Your Computer Lab," not only details needed equipment, but also discusses ongoing maintenance and lab support. The second

module, “Tutors Are Your *Human* Resources,” covers recruiting, training, and retaining tutors. An additional supporting document in the form of a Tutor Training Guide is included. The third module, “Learners Are Your Clients,” discusses who the learners are, what their needs are, how to initiate tutoring and how to help them achieve their goals. Each section is available online in PDF format, so CBOs can download and print them out. The specific audience the Implementation Guide is targeting includes CBO directors, boards, other personnel and supporters.

In tackling this well-defined project, I assessed my resources. Most importantly, the Learner Web staff provided direction in the beginning, as well as feedback and assistance throughout the process. This endeavor would not have been possible without them. Other Learner Web resources I accessed were the partners’ meeting notes and posters. These served to validate observations I had made while implementing the Digital Literacy Learning Plans at the Mid-Valley Literacy Center and encouraged me to expand my efforts to include the DeMuniz Pine St. Resource Center. With many years of experience as a volunteer and board member, my time working with these two organizations has enabled me to better understand the unique challenges implementing Digital Literacy Learning Plans presents. My career in business, especially in customer service and management, allowed me to grasp these challenges from an organizational point of view. Finally, my prior education in technical communications and my current educational experiences have facilitated my bringing these resources together to break down Digital Literacy Learning Plan implementation into manageable steps to successfully complete this project.

Conceptual Pillars

As part of writing the implementation guide, I found that I knew how to approach it, but found that I also needed to be able to explain the principles that went into developing it. Therefore, I identified three areas which I called conceptual pillars that informed the content and structure of the implementation guide. Conversely, as I wrote I found that the actual writing process further developed the conceptual pillars. Following is a description of the conceptual pillars and a discussion of how they relate to the content, structure, and style of the final product: Digital Literacy Learning Plans; Managing Resources; Effective Communication.

1. Digital Literacy Learning Plans

When beginning to write the implementation guide, I assessed what is actually needed to operate the Digital Literacy Learning Plans. I drew on information shared at the Digital Literacy Partners' meeting, input from Learner Web staff, and my experience tutoring Digital Literacy. I quickly identified the three resources needed and developed the implementation guide around the topics of computers, tutors and learners. Considering the implementation guide will be available online, each of these topics is written as a separate document so they will be available to download. Following, I will briefly describe the content of each section and discuss the decisions that went into their development.

Beyond Equipment

While it is obvious that computers are needed to implement the Digital Literacy Learning Plans, there is more to setting up and maintaining an efficient computer lab than just purchasing computers. For example, Learner Web has the same minimal software requirements as YouTube does, and they were included in table format for easy reference. However, I have seen that some combinations of the "minimal requirements" work better than others, so I also included YouTube's "optimal system" requirements that ensure the best quality viewing. Thus, CBOs immediately know what equipment and software specifications they must have and what would be nice to have for best operation.

Computers are machines and like any other machine they need to have regular maintenance and upgrades. This includes regularly updating drivers and video players. Additionally, Learner Web operates the best with Google Chrome and Firefox, so updated versions of these browsers also need to be maintained.

Good communication is a must when it comes to problems with equipment. There is nothing more frustrating or overwhelming to a new learner than a slow or malfunctioning computer. Establishing a way for tutors to report problems and have those problems quickly addressed, helps the computer lab run smoothly.

Investing in Volunteers

While the Digital Literacy Learning Plans supports learner autonomy, tutors still play a key role in helping newcomers by providing coaching and being available to answer questions. Approaching tutors as a human resource is key to building tutor buy-in, creating enthusiasm

and establishing commitment. As with any business or organization, three areas need consideration with digital literacy tutors as well: recruitment, training, and retention. Each of these areas are addressed in the implementation guide. Examples of tutor recruitment flyers and a Tutor Training Guide adapted from one provided by the Literacy Coalition of Central Texas have been included in the tutor section.

Recruitment is simply the initial step; training and retaining tutors means an investment being made by the CBO. New tutors not only require initial training, but also extra support while getting started. Additionally, efforts must be made to keep tutors coming back and continuing to volunteer their time. Additional training and responsibilities as well as tutor recognition can go a long way towards building a lasting relationship between the CBO and the tutor.

Learners Achieving Goals

Recruiting learners can be challenging since they are unlikely to see any advertisements online. However, using online resources to target agencies that would refer learners is worthwhile. Learners can be reached directly through local radio and print media such as newspapers and flyers. Typically, more than one approach is needed.

Ensuring that learners' first experience is as effortless as possible facilitates their return and ultimate completion of the Digital Literacy Learning Plans. Spending a few extra minutes getting to know new learners, finding out what their goals are, and walking them through the initial set up provides a positive introduction to the Digital Literacy Learning Plans. Likewise, on-going support that celebrates learners' achievements keeps learners engaged which facilitates their completion of the Digital Literacy Learning Plans.

2. Managing Resources

With years of experience working with nonprofits and in business, I found how organizations operate and approach innovation was a significant concern when writing the implementation guide. McDonald (2007) asserts, "Innovation plays a central role in the ongoing success of an organization" (p. 258). However, what I have observed first-hand, including with Learner Web, is that implementing and managing innovation remains difficult and challenging. For example, the CBOs using Digital Literacy Learning Plans must seek tutors who are comfortable with both people and technology. With this being a departure from how most literacy programs operate, the administration of a CBO will need to acknowledge they may see resistance and be willing to determine how they will over some it. Given this need for organizational investment, the task at hand became balancing the two fundamental areas of human resources and organizational planning and sustainability. I will describe and discuss both of them below.

Human Resources

All organizations whether for-profit businesses or nonprofits agencies develop strategies regarding their approach to human resources. Costco CEO, Craig Jelinek, summarizes his philosophy, "Instead of minimizing wages, we know it's a lot more profitable in the long term to minimize employee turnover and maximize employee productivity, commitment and loyalty" (Bromwell, 2013). This statement goes beyond simply recruiting "the right people" and highlights why investing in human resources is key to running a successful operation. While

most organizations train, many overlook the importance of retention. At Costco, one of Jelinek's strategies to retain employees is to not minimize wages. Indeed, Costco pays some of the highest wages in the grocery industry, keeps their prices low, and is still profitable. Obviously, Jelinek has a winning strategy. Therefore, the following question emerges: When a CBO has volunteers instead of paid employees, how can a similar strategy be developed and what steps must be taken to most effectively train and retain staff? Answering this question became an underlying theme throughout the Implementation Guide, not only in the tutor section.

A solid tutor training program builds a strong partnership with tutors as they begin to volunteer their time. To aid in the training, the implementation guide includes a Tutor Training Guide adapted and updated from one developed by Digital Literacy Partner, the Literacy Coalition of Central Texas. The decision to ask for their tutor guide was not solely made out of convenience, but it was sought because of the effort and the quality of the materials they provided. Additionally, their tutor training manual had already been used in "real world" tutor trainings. Even though adaptions and updates were required, the basic product was already there. I also knew that would not have time to "field test" a new one, so I chose to maximize a resource that was already available.

Ongoing support keeps tutors continuing to volunteer. As with any service provided, ensuring that new volunteers have a coordinator onsite until they feel comfortable being on their own develops consistency and ensures quality control. Providing additional training and giving additional responsibilities such as lab coordinator or learner administrator inherently recognizes tutors' efforts and keeps them invested. Even though no salary is involved, development of tutors' skills functions the same as merit-based promotions do in the private sector. Both demonstrate how the organization values the individual enough to further invest in their training and development. This fuels tutors' motivation, which leads to the tutors becoming increasingly invested in the CBO.

As with any endeavor involving human relations, open lines of communication are essential for efficient operations. For example, in operating the computer lab, Digital Literacy tutors must be able to convey equipment problems to tech support so issues can be quickly addressed. Likewise, tech support needs to communicate when problems are resolved. Lab supervisors and program administration also need to be part of the conversation, so they can plan to allocate additional resources for ongoing maintenance needs and future equipment upgrades. In an organization with a variety of roles and functions, lines of communication must go beyond two-way and become a multi-line network for maximum efficiencies. Thus, an organization's effort to implement an innovative project like Digital Literacy Learning Plans comes together to provide excellent service and fosters positive organization and community relationships.

Planning and Sustainability

When deciding to implement an innovative program like the Digital Literacy Learning Plans, organizations are often tempted to fall back on a checklist of resources. Simply having a site, equipment and volunteers are a beginning, but deeper organizational considerations must first be taken into account. Whether the Digital Literacy Learning Plans further an organization's mission statement is a question that only the organization can ask. Other considerations include strategic thinking in terms of on-going evaluation and program sustainability. Ultimately, the organizational structure is needed to provide learner scaffolding. While tempting to overlook this connection, laying the appropriate organizational foundation

opens the door to innovation and provides the support for successful implementation to the benefit of the learner.

When considering implementing innovation, an organization's mission statement can guide decisions made on a macro level (McDonald, 2007).) Mission statements provide the organization with a general purpose, a long-term objective, and can be motivating to staff. In a study about innovation in nonprofit hospitals, McDonald reports that if an innovative practice supports the mission statement, it is more likely to be successful. He suggests that the mission statement does play a key role in determining what innovation best fits the organization (2007). In other words, the mission statement informs innovation which means it not only provides a macro overview, but it can narrow the focus down to the micro level as well.

Once on the micro level, a dynamic systems approach can guide the decision-making process by recognizing that organizations have multiple commingling components. Being aware of how the parts interact, organizations can develop strategic plans that not only motivate initial efforts, but also build long-term sustainability. In a study of nonprofits' decisions processes, researchers Tucker, Cullen, Sinclair and Wakeland (2005) identified three areas to consider in complex systems. First, dynamic complexity factors in the role of time in terms of timelines, delays, and people's resistance to change. Second, feedback is more than simply positive or negative. Some feedback comes from learning along the way and is essentially reactionary. However, a more productive feedback can be developed through evaluating and re-evaluating the underlying systems. It also considers whether activities will bring about immediate results and resources or whether it is designed to reinforce ongoing efforts that are included in long-term planning. Third, identifying and changing limits to growth addresses immediate obstacles (Tucker, et al, 2005). By analyzing how each of these areas impact operations, an organization can use a dynamic systems approach as a tool to strategize new and innovative projects. However, many organizations find it necessary to break innovation down into manageable steps to successfully implement it. Thus, the Digital Literacy Implementation Guide is presented in three discreet modules which facilitates the use of a dynamic systems approach by providing the scaffolding and support CBOs need to plan for sustainability.

3. Effective Communication

Communicating through writing is no longer the standard 5-paragraph essay often taught in high school. Effective writing requires more than stringing a few sentences together into paragraphs and then arranging the paragraphs into an order that sometimes only the writer understands. Now, even business majors learn the basics of communicative writing which approaches writing as an interaction much the same as a conversation. As the impetus is upon a speaker to clearly convey their message to the listener, the same responsibility falls to the writer when considering the needs of the reader. The primary difference is the reader does not stand before the writer providing immediate feedback. Thus, the responsibility for a successful communication falls even more heavily on the shoulders of the writer. In an article in Business Communication Journal, Benjamin Schultz (2006) discusses how "visual and verbal communication are interdependent," (p. 408).." Therefore, in developing the implementation guide for the Digital Literacy Learning Plans, both verbal and visual communication strategies were taken into consideration and are discussed below.

Verbal Communication

As with all verbal communication, developing the Digital Literacy Implementation Guide meant identifying the audience to better accommodate the readers. For this task, CBOs like the Mid-Valley Literacy Center would be most likely to utilize and benefit from this resource. However, the personnel in a CBO often has diverse educational and experiential backgrounds, which means this text needed to be written so an audience with a general high school education could easily read it. Therefore, avoiding obtuse references and overly long or complicated sentences while keeping the tone direct, friendly and conversational were all important communication strategies. In the implementation guide, reading the text aloud also provided a good check for how well it flows and to get a general sense of the reading level.

The audience of CBOs also determined the overall layout of the text. In recognizing that not all CBOs would need all the information, the implementation guide is available online as three modules that can be downloaded independently. For example, if a CBO already has a well-equipped and functioning computer lab, the “Your Computer Lab” may not be information that is of particular use to them and there is no reason why they should be forced to use additional paper and toner to download and publish it. On the other hand, a CBO may find the Tutor Training Guide to be particularly useful and have the option of downloading and printing the exact number they need.

Today, CBOs have fewer resources and more demands being made on those resources. One finite resource they have is time, which means that accurate headings and well-written introductions saves the reader a lot of time when looking for specific information time and. Therefore, writing the introduction last or at least re-writing it once the rest of the content is complete ensures the accuracy of the initial paragraph. By keeping the focus on the reader’s needs, the Digital Literacy Implementation Guide verbally communicates applicable information for a real-world innovation.

Visual Communication

The importance of the appearance of a text has increased as more information is developed on computers and, conversely, computers have allowed a greater volume to be produced. Advances in software have also made desktop publishing and website design common practices. In an article for the Journal of Visual Literacy, Sandra Moriarty (1994) described visual communication as being, “different from but equally important as language-based communication” (p. 11). Including charts and images that support the text is now expected as these visual elements increase readability and summarize information.

Additionally, overall document design elements bring a cohesiveness to documents which allows the reader to know what to expect from one section to the next (Campbell, 2006).) Thus, consistency of design not only makes a document visually interesting, but it also enhances readability.

The layout of the text may seem to fall under verbal communication, but where information is presented influences how it is perceived. For example, the Implementation Guide was divided into three sections: computer, tutor and learner. Making these independent modules gave each an equal status. Thus, a reader can focus on the resource that is the most applicable for their CBO without having to wade through irrelevant material to get to it. Furthermore, presenting the learner section at the bottom, would give it the appearance of being the least

important, which is certainly not the case. Generally, important items should not be located at the bottom of a document since readers are more likely to see them and pay attention to them if they are closer to the top. Another example is that instead of having a large FAQ and Appendices at the bottom of the Implementation Guide, they were divided and included with each applicable section. This made them far easier for readers to access and reference.

Other elements to consider include the typography, color palette and logo of an agency the document is designed for. For example, Learner Web's information page is written in an Arial font, and it already has a blue and orange color theme in their logo and existing power point presentations. Staying within the parameters of established branding enables new material to be more readily incorporated into an existing document archive. Conversely, the more documents with the same color schemes and logos, makes an organization's branding all the more recognizable. This can be accomplished with the repeated use of the logo and color matching headings as well as borders around pages and text boxes or other design elements. Finally, not all CBOs have the same resources. Even though design elements are in color, many may not have the capacity to print in color. Making sure a document is equally visible in color and in black and white removes a barrier for some who still need the material, but who may lack the resources for color printing. Likewise, pictures and graphic heavy versions may be great for some, but offering a simpler, text-based version also addresses the varying reproduction resources and financial needs of different agencies. When considering visual communication, not only making the document design more readable, but also keeping in mind those with limited resources can determine how accessible the information in a document really is.

4. Conclusion

The Digital Literacy Implementation Guide evolved into a true culminating experience project. Not only did I use my background, but I drew on others' experiences with Digital Literacy as well. In this document, I outlined the personal trajectory that led me to this project, but also identified where I acquired specific strands of information that were woven into the text of the implementation guide. Thus, the development of an implementation guide models how projects like the Digital Literacy Learning Plans must be collaborative to succeed. As with writing this implementation guide, it takes all of the history, lessons learned along the way, false starts, and ultimately the successes to bring about the complex support structure needed to implement an innovation like the Digital Literacy Learning Plans.

The objective behind developing the Digital Literacy Implementation Guide has remained constant. That objective is to provide learners with a positive experience and opportunity to achieve their goals. Ultimately, the implementation guide is designed to enable CBOs with a compatible mission statement to carry out that objective and provide new learners with the opportunity to gain digital literacy skills. The Digital Literacy Implementation Guide is written and designed to be a support document and go-to reference for CBOs. It can be adapted and updated as more CBOs gain experience with Learner Web's Digital Literacy Learning Plans and have additional insights.

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