Just in Time Lotus Notes Support

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Abstract: The Lotus Notes email host program is used in the Hawai'i Department of Education (HIDOE) to provide communication within all public schools in Hawai'i. At the school level, Lotus Notes is used for checking and sending email, reading school bulletins and HIDOE memos, posting meeting notes, and generating service requests. Without access to their Lotus Notes accounts, teachers and other staff members feel they are cut off from school communication, and therefore, cannot do their jobs effectively. Many requests for Lotus Notes assistance are generated and given to technology coordinators on a daily basis. Until the technology coordinator can help the teacher or staff member, school communication for that person halts. This instructional module provided mini trainings to teach teachers to perform three Lotus Notes tasks by themselves. The module was delivered through a website that utilized screencasts, a document with text and screenshots, and a downloadable document option for those wanting to print the trainings. Survey results indicated that an overwhelming amount of participants found the trainings to be helpful. They stated they could now accomplish adding a Lotus Notes (LN) application, posting minutes, and activating the workspace tab in LN 8.5 by themselves. All participants felt more comfortable in using online trainings to learn. Responses indicated that the trainings were clear, easy to follow, and beneficial because of the relevance of the trainings and choices they had for learning. The few suggestions received from the participants will be considered before linking this website to the school's website.

Introduction

At the beginning of the school year, because of new staff, teachers moving classrooms, new devices or for other unknown reasons, many requests for Lotus Notes assistance are received. As Technology Coordinator, I desire getting everyone up and running in Lotus Notes as quickly as possible. Since the email databases are unique to each person and the computer they are assigned to, I have to go to each classroom to help each person. Because of this, resolving the plethora of Lotus Notes requests takes a lot of time.

School year 2013-14 was no different. I was overwhelmed with technology requests of all types. While organizing the list, I noticed that many of the requests were for Lotus Notes help. I saw repeat requests of everything from installing Lotus Notes on a new device to adding a new application onto a workspace. With my prioritized list in hand, I slowly

started responding to those requests.

While helping teachers and other staff members, I noticed a willingness to learn -- teachers wanted to know how to do what I was doing. In a study done by Smith (2013), it was found that teachers want to learn about troubleshooting technology to be less dependent on other people. With this attitude from the teachers, the thought of designing an online module that teachers could refer to when they were experiencing technology problems came to mind. This relevant type of instruction would be a useful tool for them (Sun, Tsai, Finger, Chen, & Yeah, 2008). Since most of the technology requests was for Lotus Notes support, the online instructional module would focus on those requests that were the most common.

Lotus Notes is a software program that stores and manages information in databases. It is used by the Hawai'i Department of Education (HIDOE) to send and receive email, compile and track data, and schedule appointments ("Hawaii department of,"). Databases that are used by all Hawai'i schools are saved on the State server and databases used in individual schools are saved on their School server. Common databases used at the school level include the mailbox, HIDOE and school address books, master calendar, weekly bulletins, service requests, and committee minutes.

Teachers and other staff members view Lotus Notes as a tool for participating in school wide communication. When they do not have access to their Lotus Notes accounts, they cannot read their emails nor can they read the weekly bulletins. Many teachers and staff have indicated to me that without access to Lotus Notes, they feel cut off from school communication, and thereby, cannot to do their jobs effectively.

The purpose of this project was to develop and evaluate an online series of "How To" mini trainings that provided just-in-time Lotus Notes support for Hawaii elementary teachers in order to aid in school wide communication.

Methodology

A website was used to deliver three mini trainings that focused on installing an application, posting committee minutes, and activating the workspace tab in Lotus Notes 8.5. The website also included pre and post instructional surveys. The content for the mini trainings was delivered via direct instruction (Johnson & Cooper, n.d.) through video and audio instruction along with a text-based document with screenshots.

Instructional Strategies

To build effective mini trainings, the ADDIE (Analysis, Design, Development, Implementation and Evaluation) model for instructional design was used. The website was designed for ease of navigation (Kao, Wu, & Tsai, 2011), allowing the participant to proceed from one training to the next. The content was delivered to support the various learning styles of the participants. Short videos with audio instructions were provided for learners who prefer to watch and listen to instruction. A text-based document with

screenshots was provided on the website for those who prefer to follow instructions through reading and looking at images. A download option for the text-based document with screenshots was provided for those learners who preferred to have a printed copy in their hand.

Technologies

The online series of "How To" mini trainings was created using Weebly, a free web authoring program. Weebly was used because it was familiar to the researcher, and therefore, easy to use.

The module screencasts were produced using QuickTime Player and the voiceovers were accomplished in iMovie. The final video was formatted as an MPEG-4 file to allow participants to view the videos from any device and on any network.

Population

Participants of this study were individuals used the Lotus Notes email host program at their workplace. To get a varied group of teachers, sixteen elementary teachers were chosen based on their age group and years of teaching. Since most elementary teachers are women, only one participant was a male. All participants also showed a personal interest in independently learning to add an application to their workspace and post meeting notes. For those who have the latest Lotus Notes software, LN 8.5, interest was also shown in learning to activate the Workspace Tab. For the content, two subject matter experts (SME) were asked to review the site before it was sent to participants.

Data Collection

Google Forms was used to make multiple-choice pre and post instructional surveys. Both quantitative and qualitative data were collected through these surveys. In the pre-survey, participants were asked to create a code that was to be used at the beginning of both surveys. This code allowed the participants to remain anonymous. The Likert scale data from the pre and post surveys were collected and compared. Data that focused on the difference in participants' understanding and knowledge were then inputted into a Microsoft Excel document where bar charts were produced to present the data visually.

Demographic questions were also included in the pre-survey. Demographic data were collected to see if age, sex, experience in teaching, and years in using Lotus Notes affected the way participants interacted with the online mini trainings.

Participants were also given the opportunity to describe their observations on the quality of the online mini trainings by ranking three statements via a 5-point Likert scale with 1 being Knows Nothing and 5 being Very Knowledgeable. Participants also responded to three open-ended questions. Data from the Likert scales were inputted into a chart and the answers to the open ended questions were collected and coded for similarities.

Results

All 16 participants responded to both the pre and post surveys. Participant demographic data showed that there were 15 females and one male, and participants were from every age group, the youngest in the 20-29 group and the oldest in the 50+ group. The participants' years of teaching were comparable to their years in using Lotus Notes for school wide communication. It does not appear from the demographic data collected that the participants' sex, age range, years of teaching, or years using Lotus Notes affected the way the participants interacted with the "How To" mini trainings.

Fourteen of the 16 participants indicated becoming more comfortable in using online mini trainings to learn. Some increased quite a bit in comfort level starting at a ranking of 1, indicating that they were very uncomfortable in the beginning. After the trainings, they ranked their comfort level a 5, indicating they became very comfortable in using online trainings to learn. Two of the 16 participants started the trainings being very comfortable and reported no changes. (see Figure 1).
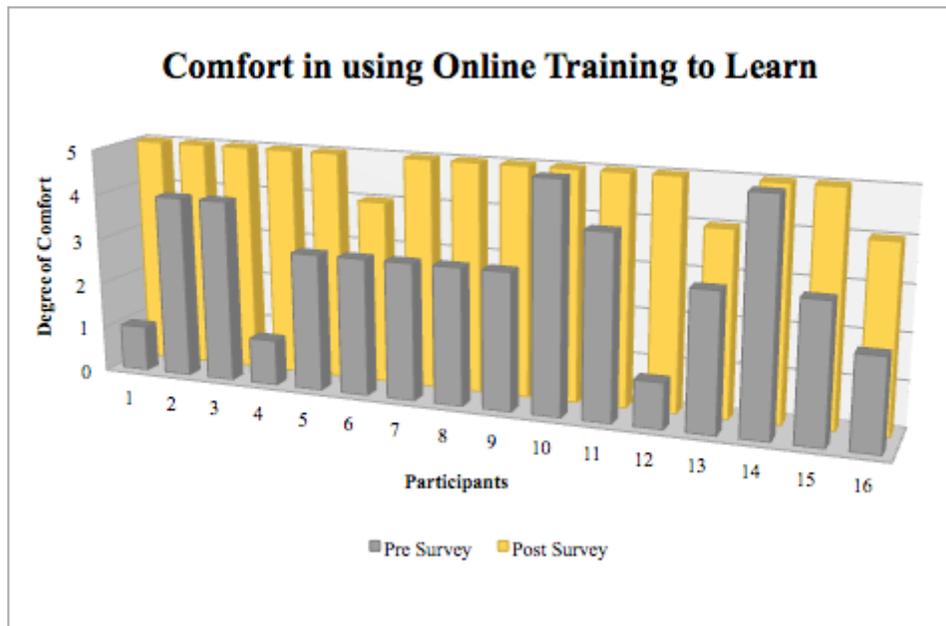

Figure 1. Comfort in using online mini trainings to learn.

Three questions on the surveys asked the participants to rank their understanding of the "How To" concepts covered in the mini trainings. For the first question, participants were asked to rank their knowledge on adding an application to their Lotus Notes workspace. Fifteen out of the 16 participants reported becoming more knowledgeable from the pre-survey to the post survey (see Figure 2). Many started the training with a ranking of 1 indicating they knew nothing about the task. After the training, they ranked their knowledge a 4 or 5 indicating they gained much knowledge through the training. Participant #13 did not become more knowledgeable after viewing this mini training stating, "I was rushed and tired."
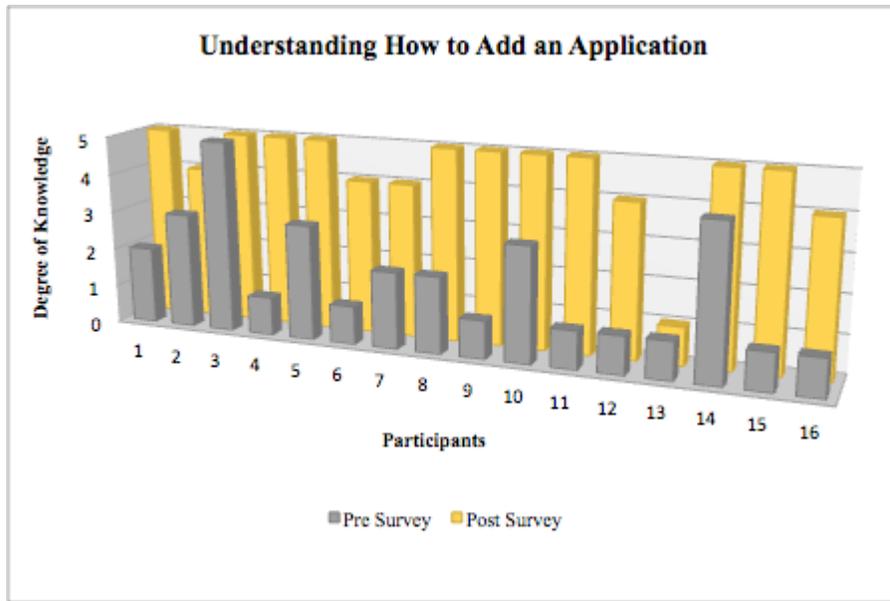
Figure 2. Understanding how to add an application

For the second question, participants were asked to rank their knowledge of activating a workspace tab. This training was specific to those who had the latest Lotus Notes 8.5 software on their devices. Only 15 out of the 16 participants had this software (see Figure 3). From those 15 participants, all reported becoming more knowledgeable of how activate the workspace tab. Many started the training with a ranking of 1 indicating they knew nothing about the task. After the training, they ranked their knowledge a 4 or 5 indicating they gained much knowledge through the training.
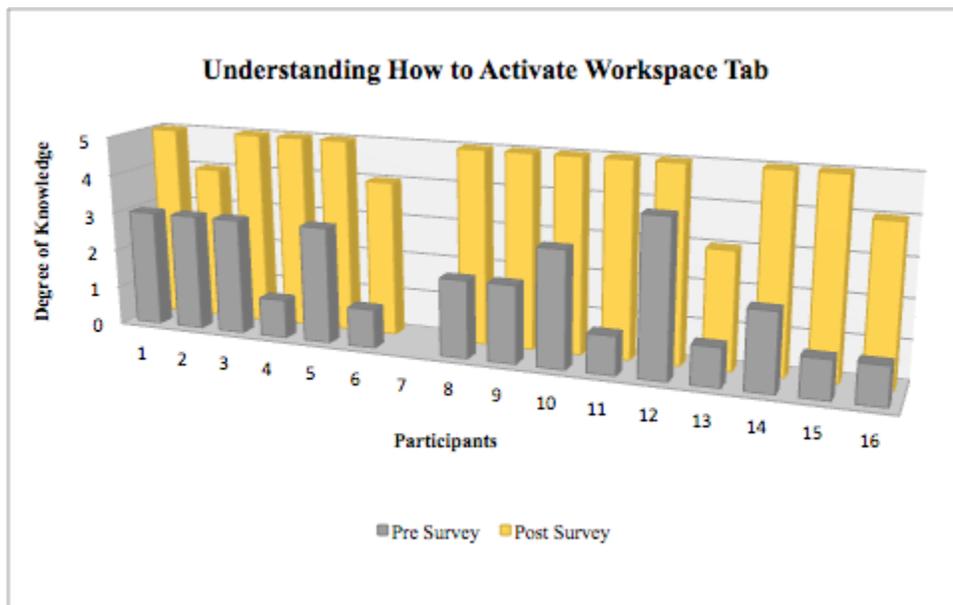

Figure 3. Understanding how to activate a workspace tab.

For the third question, participants were asked to rank their knowledge on posting meeting notes to the Committee Minutes application. Fifteen out the 16 participants reported becoming more knowledgeable. Many started the training with a ranking of 1 indicating they knew nothing about the task. After the training, they ranked their knowledge a 4 or 5 indicating they gained much knowledge through the training (see Figure 4). Participant #13 gained no knowledge from this training stating she was rushed and tired.
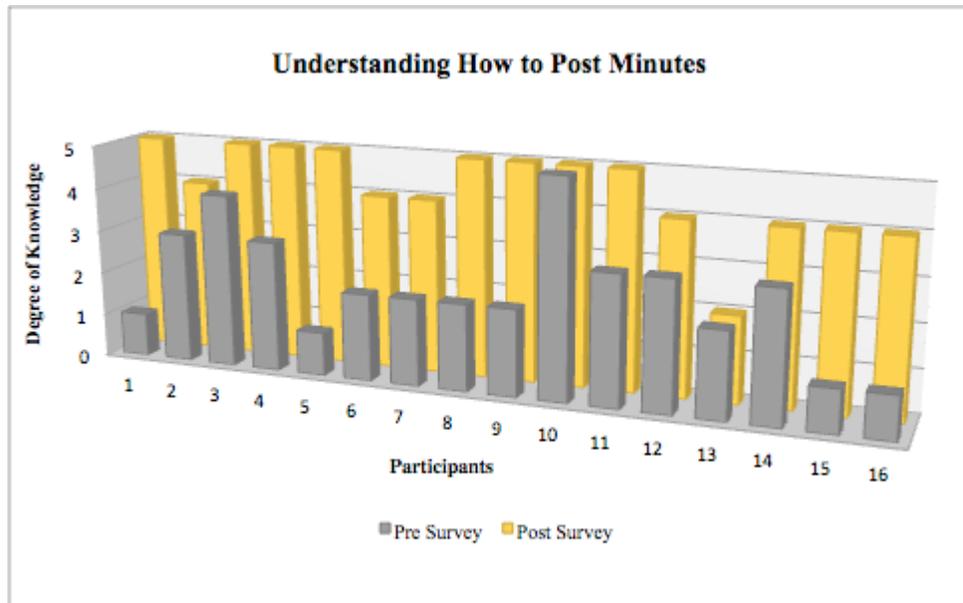

Figure 4. Understanding how to post minutes.

In the post survey, participants were asked to rank the effectiveness of the trainings. The first question asked if the trainings were easy to follow. All participants gave this question a ranking of 5 meaning they strongly agreed that the trainings were easy to follow. The second and third questions asked if the screencasts and the document with text and images were effective in helping the participant to learn. All participants also ranked this a 5 meaning they strongly agreed that both the screencasts and the document with text and images were effective in helping them to learn.

Data were compiled from the responses to open-ended questions and coded for similarities. On the pre-survey, five different responses were received for the question that asked the participants to indicate what other "How To" topics in Lotus Notes they would want instruction for. One participant wanted to know how to install the Lotus Notes software. Another wanted to know how to turn off the notification sound for new emails and how to add a signature. Another participant asked how to make a group email and one asked how to switch from a PC to a Mac and vice-versa. Since the participants were anonymous in this study, an email was sent to all participants to identify themselves if they wanted answers to these questions.

In the post survey, participants were asked to describe any positive aspects of participating in these online mini trainings. There was an overwhelming response indicating the trainings were helpful, clear and easy to follow. Participants also indicated that the trainings were beneficial because they were relevant and they also showed an appreciation for the different modes for learning the content.

For the question that asked for suggestions for improving the mini trainings, most participants indicated they had no suggestions. One participant suggested that the order of the trainings be changed and another reported the copy/paste step was missing from the text instructions.

Finally, when participants were given the option to tell the researcher anything else they wanted her to know, many participants took this as an opportunity to compliment or thank the researcher. A few also indicated that they were looking forward to more mini trainings. One participant's response:

> I hope that you continue to add to this site as more requests come in from the teachers, since we usually run into the same issues. Also, thank you for the time you spent on putting this together for us. I will definitely be referring to this again in the future!

Discussions

The "How To" mini trainings consisted of step-by-step instructions and were delivered through screencasts and a document with text and images on a single website. The results indicated that these methods of learning were effective in helping all the participants to learn the concepts.

The results of this study also indicated that all participants, except for the two who felt very comfortable from the beginning, did feel more comfortable learning in an online environment from the pre to the post survey (Figure 1). Some participants increased quite a bit in comfort level starting at 1, indicating they were very uncomfortable at the beginning, to 5, indicating they very comfortable learning in an online environment after the trainings.

Further, an overwhelming amount of participants indicated that their knowledge increased in the "How To" concepts (Figures 2, 3, and 4). Many started the training with a ranking of 1 indicating they knew nothing about the task. After the training, they ranked their knowledge a 4 or 5 indicating they gained much knowledge through the training.

The demographic data did not show to have an effect on the way the participants viewed or interacted with the "How To" mini trainings since all of the participants did report being comfortable in using the online training and most of the participants reported an increase of knowledge. Demographic data included the participants' sex, age range, years of teaching, or years using Lotus Notes.

Limitations

This study's primary limitation was in the way the participants for the study were chosen. The researcher knew each participant and chose them based on their demographic data. A true random sampling could have been employed if the researcher had more time to seek out participants that she didn't know but still used Lotus Notes.

It is noted that because the researcher knew the participants, a potential limitation was avoided. Early in the data collection phase, a participant notified the researcher of an error in the post survey. The ranking of the Likert scale of one questions was opposite of that on all the other questions. Because the participants informed the researcher when they finished the trainings, the researcher was able to notify the participants who misread the questions. These participants were able to resubmit their surveys with their corrected data.

Another limitation that affected one participant in this study was that she didn't have the Lotus Notes 8.5 software. Because of this, this participant was not able to participate in the training that was specific to those with the Lotus Notes 8.5 software.

Future Research

With more time, the researcher would have like to expand on the methodology section of this study. The researcher would have added a pre-test to assess a participant's knowledge of the concepts before the mini trainings and a posttest to assess a participant's knowledge after the mini trainings.

Implications

The open-ended data along with the post survey data showed participants were interested in having additional online mini trainings added to this website. A few participants wanted more Lotus Notes trainings and others indicated they looked forward to other relevant trainings. The researcher plans to add to this website over time as future technology requests are received and analyzed for the redundancy of need.

Conclusions

This study aimed to develop and evaluate an online series of "How To" mini trainings that provided just-in-time Lotus Notes support. As seen in the data, the participants in this study became motivated by web-based professional development because they were personally interested in the topic and they believed that a positive outcome would be the result of the learning (Kao, Wu, & Tsai, 2011). The participants also showed they were able to grasp the concepts taught through the online "How To" mini trainings. Instructing them to independently install and utilize the features of the Lotus Notes program has empowered them to see they can troubleshoot some of their technology problems. Data collected from this study will guide the further development of other "How To" mini trainings that help to support teachers with their technology needs.

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