iConference 2014 Poster Proposal Submission

Title: Communities of Practice and Connected Learning: Breaking Down Walls Through the Use of Information and Communication Technologies

Abstract:

Valuable Initiatives in Early Learning that Work Successfully (Project VIEWS2), is an Institution for Museum and Library Services (IMLS) National Leadership Research Grant. The overall objective of the research is to provide evidence-based methods for planning and evaluating the outcomes of public library early literacy programs. The Project VIEWS2 study, unusual within Library and Information Science (LIS) research, consisted of a two-year experimental design with an online intervention. Forty randomly assigned libraries (13 large, 13 medium, and 14 small) throughout the U.S. State of Washington were included in the two-condition study: control (20) and treatment (20). The focus of this poster, rather than on the overall objective of the research, is to look at how the design of an intervention, administered to the experimental librarians during Year Two of the study, broke down walls among the librarians widely separated geographically, through the use of Information and Communication Technologies (ICTs). Methodologically, two pre-intervention surveys provided knowledge of the librarians' context and led to the design of a connected learning experience. The existence of an ongoing community of practice across geographic boundaries will be verified by post-intervention survey and in-depth phone interviews prior to submission of the final poster draft.

Key Words: literacy, early learning, connected learning, communities of practice, experimental design

Text for Poster
Note: Some of the following poster text will be replaced by illustrations on the poster, e.g., a map showing the geographical distribution of the libraries in the study.

Introduction

Valuable Initiatives in Early Learning that Work Successfully (Project VIEWS2), is a study funded by an Institution for Museum and Library Services (IMLS) National Leadership Research Grant. The Project VIEWS2 study, unusual within Library and Information Science (LIS) research, consisted of a two-year experimental design with an online intervention. The overall objective of the research was to provide evidence-based methods for planning and evaluating the outcomes of public library early literacy programs. Forty randomly assigned libraries (13 large, 13 medium, and 14 small) throughout the U.S. State of Washington were included in the two-condition study: control (20) and treatment (20). The focus of this poster, rather than on the overall objective of the research, is to look at how the design of an intervention, administered to the experimental librarians during Year Two of the study, broke down walls among the librarians widely separated geographically, through the use of Information and Communication Technologies (ICTs). Methodologically, two pre-intervention surveys provided knowledge of the librarians' context and led to the design of a connected learning experience. The existence of an ongoing community of practice across geographic boundaries will be verified by post-intervention survey and in-depth phone interviews prior to submission of the final poster draft. Findings of this research can be applied to designing other ICT educational situations.

Figure 1 – Map of libraries in study
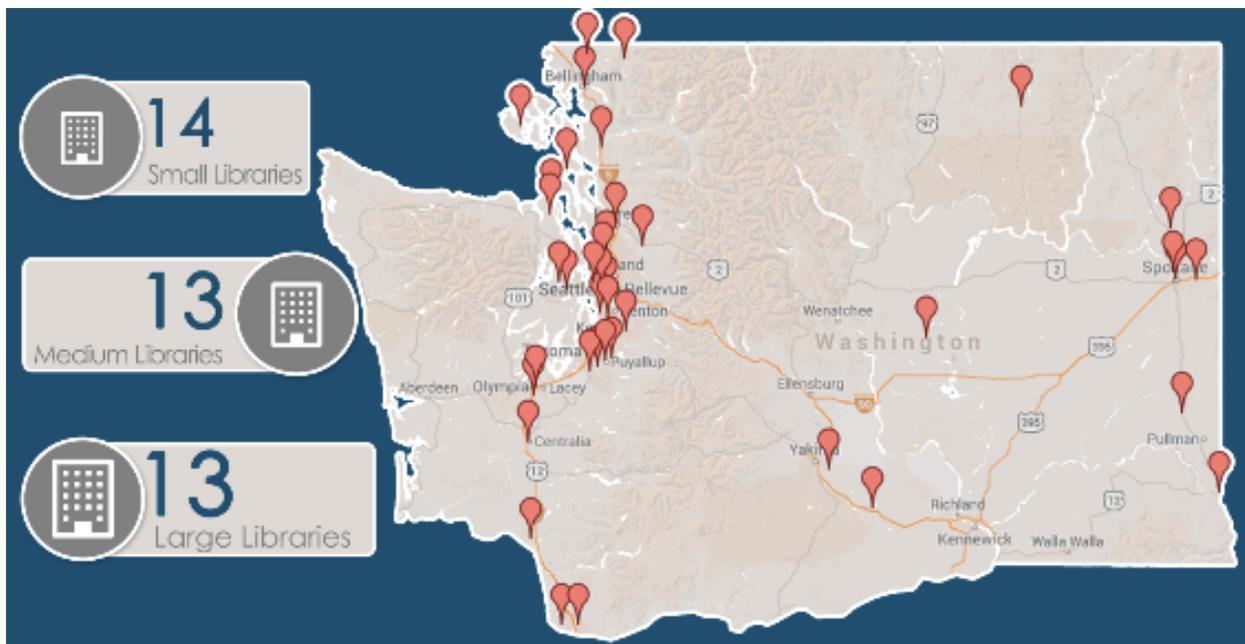
Theoretical Basis for Intervention Design

EL-Capstone, a research-based instrument administered before the intervention, revealed to us that though librarians indicated a reasonable comfort level with the early literacy core knowledge to be presented in the intervention, they did not feel comfortable implementing the knowledge in

their practice. We wanted to create an intervention that would build confidence through peer support and shared learning opportunities, one that would break down the geographical barriers.

Therefore, a social constructivist approach to communities of practice and the principles of connected learning incorporated in webinars were chosen as appropriate theoretical bases for an intervention designed for librarians too widely distributed to meet in person.

Communities of practice have long been considered a successful mode for adult learning and as method for building confidence. As noted by Yukawa, "communities of practice stress that learning is not merely knowledge acquisition but more fundamentally a process of identity formation and empowerment through participation in learning communities" (2010, para 7).

Connected learning is a recently introduced concept, originating from the work of Ito and others with the learning of youth in a networked society (Ito et al, 2013). However, several of the principles of connected learning as readily apply to adult learners in an ICT learning situation. In our design of the meeting, we chose to incorporate two aspects of the Connected Learning principles and values: "Peer-supported," i.e., contributing, sharing and giving feedback in inclusive social experiences that are fluid and highly engaging (para 17) and "Social Connection," i.e., "learning becomes meaningful through relationships (para 15) believing that these would help facilitate a community of practice and a cohort of experts.

Context Informs Design

Two surveys of the librarians gave us needed information about the context of the intervention. In addition to El-Capstone, we conducted a survey to assess each librarian's current technological capabilities and work obligations and provided assistance in preparing their environments. As a result, we created an intervention design that offered maximum flexibility and consistency with respect to meeting dates and times, as well as providing hardware and software support wherever possible to facilitate community and participation.

Figure 2 - Intervention scheduling map
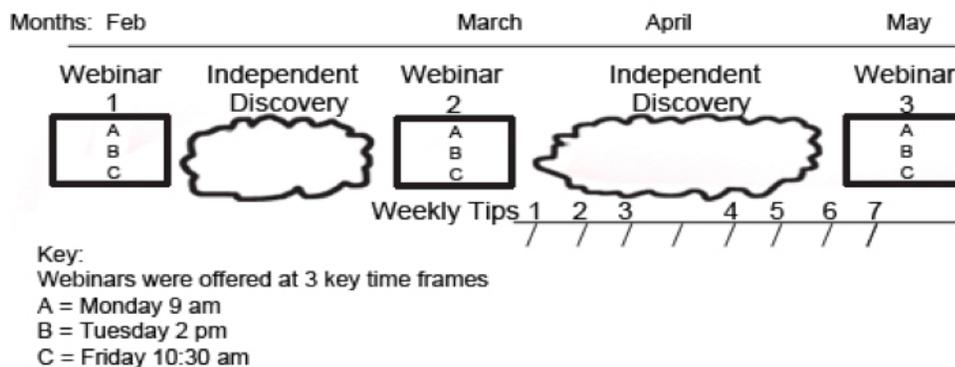
The final design consisted of two initial training webinars, offered at specific times, that were intended to be interactive, collaborative spaces between trainers and trainees. Periods of independent discovery and exploration in between enabled librarians to incorporate the learned strategies into their storytimes and build their own levels of expertise. Additionally, we provided

seven weekly emails to the participating librarians with storytime tips and related indicators for the age ranges; these were also posted on websites along with recordings of the webinars for their review. A third and final webinar gave the librarians an opportunity to come together and share their experiences as they continued to grow in their professional practice.

At the conclusion of the training, the librarians were administered EL-Capstone again and a follow up survey in which they were asked about:

- the usefulness and ease of the Webinars
- the usefulness and ease of the weekly emails
- the training website
- what they took away from the training
- creating a sense of community among the librarians

Data Analysis

The second administration of EL-Capstone showed that the treatment condition librarians grew in confidence that they could incorporate their early literacy knowledge into storytimes while the control group did not. In general, the responses of the experimental librarians to the survey questions were positive; suggestions for improvement, such as providing agendas ahead of time, will also be shared. In reviewing the results of the survey, we found several common themes that demonstrated a shared positive experience through the webinars and a varied perspective at the same time.

Word clouds constructed from the post-intervention surveys enabled us to convey the responses in a meaningful way to the librarians.

Attached are a few of the images that we shared with the librarians and will refer to in our poster.

Figure 3 - Visual Cloud of recurring themes relevant to usefulness of weekly emails.

Figure 4 - Visual Cloud of the usefulness of the webinars.

Moving Forward

 Before the final draft of the poster is due, we will be conducting telephone interviews to gauge the long term effects of the connected-learning experience to inquire in more depth about peer learning, continued collaboration, whether a sense of community has been gained through the study, whether geographical barriers have been broken, and how to sustain a community beyond the scope of the study. These results will be incorporated into our final poster.

Significance of the Study

The component of this research study surrounding the design of an intervention using ICTs provides both a theoretical and methodological model for breaking down geographic barriers when participants in educational experiences are too widely dispersed to meet in person. The pre- and post-test experimental design is largely unique in LIS research literature. The study assesses a long-term theoretical principle, i.e., communities of practice, in a virtual environment as well as applying principles from a newer concept, connected learning. It reinforces the idea that it is not only knowledge but also context that are important in the design of education using ICTs.

References

Note: References from researchers associated with the project are omitted and will be added in the final copy after the review process.

Ito, Mizuko, Kris Gutiérrez, Sonia Livingstone, Bill Penuel, Jean Rhodes, Katie Salen, Juliet Schor, Julian Sefton-Green, S. Craig Watkins. (2013). Connected Learning: An Agenda for Research and Design. Irvine, CA: Digital Media and Learning Research Hub.

Yukawa, J. (2010). Communities of Practice for Blended Learning: Toward an Integrated Model for LIS Education. *Journal Of Education For Library & Information Science*, *51*(2), 54-75.