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DESIGNING AN ONLINE DISSERTATION RESEARCH COMMUNITY OF PRACTICE

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This design case describes phase one (pilot phase) of an intervention strategy aimed to support students in a limited-residency doctoral program. Specifically, this case documents the process and decisions that were made along the way to design an online research community of practice (CoP) for students who have completed coursework and are working on their dissertations in the field of instructional design and technology. The case includes the designers' guiding framework, a detailed description of the case including the site, participant and platform selection, and the preliminary state of the design. To date, a design team is in place, a guiding framework for the design of the CoP is established, a needs analysis has been conducted, the participants have been identified, the CoP strategy has been defined, the site has launched, and students are just now beginning to become a part of this online community. It will take time to cultivate the community and determine whether the design is effective in achieving the community's goals. Data collection and documentation of design decisions continue as the design and development of the online CoP emerges.

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CONTEXT

This design case is situated in a graduate school of computer and information sciences at a non-profit, private university in the Southeast. This site was chosen because 1) it is the location where the primary designer teaches and mentors doctoral students, and 2) it offers a part-time, blended (limited-residency) format for doctoral study. This format enables working professionals to complete their doctoral degrees while at the same time, maintain their professional careers. Students come to campus for face-to-face instruction and other program activities over one extended weekend during the semester; however, most of the teaching and learning activities take place in a virtual environment. When students enter the dissertation phase of doctoral study, most of the communication between the dissertation student, chair, and committee is conducted via telephone and various forms of computer-mediated communication. The school also uses the Dissertation Tracking System (DTS), a proprietary system, as a tool to manage the dissertation process by housing all dissertation-related work and text-based communication. While these tools are useful, they do not ensure that students communicate with each other and faculty on a regular basis and make continual progress on their dissertation. These students may disengage from the dissertation process and put off their research in lieu of other work/life issues such as jobs, families, and finances (Lovitts, 2001).

Studies have indicated that students may feel isolated and disconnected from faculty and their peers during the dissertation stage (Lovitts, 2001, 2005) and these feelings may affect a student's decision to persist in the program (Rovai, 2002). For doctoral students who are enrolled in limited-residency programs, these feelings may be exacerbated (Terrell, Snyder, & Dringus, 2009). As three professors who advise students in the computing technology in

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education program (one of the four doctoral programs the school offers), we wanted to address students' feelings of isolation and disconnectedness by first understanding our students' needs and then figuring out what we could do primarily with regard to an online support structure and the faculty-student relationship to more effectively support these students.

The specific design challenge was how to create a virtual environment that supported student-to-student and student-to-faculty connectivity during the dissertation. One way of improving the support structure between doctoral dissertation chairs, committee, and students is through the development of community. Specifically, building a community of practice (CoP) can enhance learning and increase connectedness by enabling members to interact with each other and participate in collaborative learning experiences (Lapointe & Reisetter, 2008; Rovai, 2002; Snyder, 2009; Tinto, 2007).

Following is a description of design decisions that were made during the process of developing an online CoP that supports doctoral students in a limited-residency doctoral program. Rather than launch a program-wide online research community, we decided to create a smaller research community to pilot test the initial design. Participants include 13 students who met the following criteria: (a) they are at the end of coursework or are currently registered for dissertation research, and (b) they are under the supervision of the first author. These students are at various stages of the dissertation process. Two of the 13 students are reviewing the literature in a specific area of instructional technology, seven students are working on the initial concept paper, two students are at the proposal stage, one student is at the report stage, and one student is a recent graduate of the program. This homogeneous sampling was determined based on their completion of 700-level coursework, enrollment in directed research or dissertation, and their common dissertation research interests in instructional design and technology.

The first author served as the primary designer of the CoP and the second and third authors provide input to the design and serve as observers of the community through peer debriefing and member checks (Smith, 2010). While there were no specific time constraints set on the actual design and implementation of the CoP, we had no funds to support this initiative and we had limited time to invest in such design efforts. In turn, these constraints are reflected in the selection of the CoP platform and tools that were selected for this pilot. The following documentation includes the designers' theoretical perspective and guiding framework, a detailed description of the case and design decisions, and the preliminary state of the design.

THE DESIGNERS' THEORETICAL PERSPECTIVE AND GUIDING FRAMEWORK

Rovai (2002) suggested that faculty and administration can decrease the attrition rate by influencing a student's level of satisfaction and commitment. Studies reveal that one successful way of decreasing attrition is to get students to feel like they are connected to their academic programs by creating communities (Tinto, 1997; Rovai, 2002). Wenger, McDermott, and Snyder (2002) define communities of practice as "groups of people who share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise in this area by interacting on an ongoing basis" (p. 4). Most often CoPs are identified through the artifacts (e.g., documents, stories, chat logs, email records, practice, etc.) that are produced within them (Wenger, 1998). What seems to make CoPs special is the collective achievement of a group of people engaging in and conversing about a common knowledge domain and building that knowledge domain on practice. This process results in interesting artifacts, both physical and intellectual.

Over the years, communities of practice have evolved from face-to-face environments to online environments. Referring to "digital habitats," Wenger, White, and Smith (2009) aim to connect community and technology by looking at the interactions between them. Specifically, what they find most interesting is how community and technology, when combined, affect the community members' ability to "learn together." They emphasize the role of technology in creating a community where "the learning component is central" (Wenger, et al., 2009, p. 3).

In an effort to build such digital habitats, Terrell, Snyder, Dringus, and Maddrey (2012) proposed a grounded theory that supports student-to-student and student-to-faculty communication for doctoral candidates who are working on their dissertation in a limited-residency doctoral program and offer the following working model for the development of an online research CoP (see Figure 1). As a continuation of this research, we used this model to guide the development of the needs analysis and subsequent pilot CoP. The objectives of the proposed StaR CoP are to support dissertation students in their effort to transition from a scholar to a researcher (particularly in the identification of a research-worthy problem and development of a dissertation concept), provide a structured online environment that supports student-to-student and student-to-faculty interaction, and foster and sustain a community of scholars (faculty and doctoral students) that advances the learning of all members (Terrell et al., 2012). StaR stands for **S**cholar **t**o **a** **R**esearcher. It also represents the five components of the model including **s**trategy, **s**takeholders, **s**tructure, **t**echnology, and **r**esources.

The StaR model was used as a guiding framework for the needs analysis and preliminary design decisions described

in the following sections. Corresponding to each of the components in the StaR model, Terrell et al. (2012) offer guiding questions for the development of an online research CoP. We used these questions to develop the needs analysis and preliminary design.

Strategy: What is the goal, purpose, or mission of the CoP? What are the objectives and how will we achieve them? What are the accountability benchmarks?

Stakeholders: Who are the stakeholders? What are their goals and values? What are their roles in the community? How do they benefit?

Structure: What are the characteristics of the CoP? How will we organize the CoP to facilitate knowledge sharing? How will we promote a sense of identity? How will learning occur (i.e., what instructional strategies and methods will we employ)? What will the CoP look like?

Technology: How does technology support teaching and learning? What platform is best suited to support the CoP? What tools will be used to support communication and collaboration (i.e., how will technology be used to support learning)? How will privacy and security issues be managed?

Resources: What kinds of information will be shared? What are the artifacts?

NEEDS ANALYSIS

After obtaining approval from the university's institutional review board (IRB), a web-based survey was sent to a group of 38 students who were working on their dissertation in computing technology in education. The survey consisted of ten questions (see Appendix A) that correlated to each of the StaR model components. For example, question 1, "What purpose would an online CoP for dissertation students serve?" pertains to the development of *Strategy* while question 5, "In addition to students, who else should participate as members in the CoP and what contribution could they make (e.g., other GSCIS doctoral students, faculty, others outside of GSCIS)?" addresses *Stakeholders*.

In addition to providing feedback related to each element of the StaR, results from the needs analysis also offered important input for selecting the platform and confirming the initial design decisions. Twenty-five students responded to the survey. Following is a summary of the needs analysis results. Results are categorized by each component of the StaR model. Direct quotations from students are provided.

Strategy

When asked, "What purpose would an online CoP for dissertation students serve?" and "How could an online CoP for dissertation students help you?" the overarching theme was one of connectivity. Students wanted to be able to connect with their professors as well as their colleagues and feel supported during the dissertation process. Examples of student comments that support this conclusion include:

The CoP should provide a forum for dissertation students and faculty to share information, advice, and encouragement about the dissertation process and research topics with one another.

To retain some of the camaraderie and contacts developed during the years of coursework.

A social and academic resource connecting those in the midst of producing a dissertation.

Stakeholders

When asked, "What group of students should be included (i.e., students enrolled in dissertation only, students enrolled in directed research or dissertation, or all students regardless of what stage they are in the program)?" all of the respondents felt that all



FIGURE 1. Graphical Representation of Proposed Online Community of Practice for Dissertation Students.

of the program's students enrolled in dissertation should be included in the CoP. There was strong support for including faculty and more limited support for other students in coursework, graduates, and external experts. Following are examples of students' comments that reflect this theme:

I believe all should be invited, as I may have changed or learned differently throughout my course with the opportunity to lurk with others that were already in the dissertation phase.

These students (i.e., dissertation) are in the greatest need of support.

Faculty should be involved or advisors especially when a student question is not answered or answered incorrectly. The faculty role should be limited though so students become more engaged within the community.

Structure

When asked, "What do you think you would gain by participating in a dissertation CoP?" respondents reiterated the primary purpose of the CoP as one of student-to-student and student-to-faculty connectivity and support. Examples of students' comments that reflect this theme include:

The CoP should provide a forum for dissertation students and faculty to share information, advice, and encouragement about the dissertation process and research topics with one another.

A main purpose would be as a resource center for sharing of information specific to the dissertation process.

Increase support from faculty and students. Be able to obtain answers to some of the questions that I have about research.

Assist other students in the process as well.

Technology

When asked about the types of technology and tools that would be useful in a CoP, responses varied from asynchronous discussion forums to real-time resources such as Skype and those offered by Google. The overarching focus seemed to be the use of asynchronous tools. Examples of students' comments that reflect this theme include the following:

Threaded communication, indexing and tagging to allow for searching, standard threads to provide some basic structure for communications.

Any decent threaded discussion area will do.

Mostly discussion forums—maybe with tracks for either technology areas or phases of the dissertation.

Resources

When asked, "What kinds of information and resources should be shared in the community?" students expressed a need for internal and external resources. Responses included:

Personal experiences and insights into developing research will be the most important contribution.

Links to online resources, tools that would be appropriate for someone in the dissertation phase.

Sample documents and research resources; helpful hints from fellow students and from faculty, links to resources.

PRELIMINARY DESIGN DECISIONS

Once the foundation for the design of the research CoP was established through previous research and development of the StaR model (Terrell et al., 2012) and the site and participants were selected, selection of the platform on which to host the online CoP was the next big decision. After a variety of options were considered to host the CoP including wikis, hosted web sites, and open-source learning management systems, two options were selected based on cost, feasibility, functionality, and ease of use. These two platforms included Blackboard, the learning management system used by the site selected for this study, and Google Sites, a free online platform for information sharing.

While there are advantages and disadvantages to both platforms, a final decision was not made until the results of the needs analysis were analyzed. These results indicated the types of technology, tools, and resources students wanted and this information was used to select a platform. Based on the results of the needs analysis, Google Sites was chosen as the platform for the research community. Reasons Google Sites was selected over Blackboard included: more flexibility to integrate Web 2.0 tools as part of the community, the ability to synchronize discussion forum messages to mobile devices, and the ease of integration of other Web 2.0—specifically Google applications—to the Google site.

During this preliminary stage, two separate Google sites were created: one served as the dissertation research CoP, and the other was used as the designers' planning space. The first author worked between the two sites using information from the planning site to create the research CoP. On the planning site, separate web pages were created for each element of the StaR (e.g., strategy, stakeholders, resources, and technology). We used the questions pertaining to each component of the StaR model to think through some of the initial decisions about the research CoP. This collaboration and brainstorming resulted in, for example, the content in the Welcome and About Us sections of the CoP. On these pages we explain the faculty and student commitments and the expectation of a "give and take" from each community

member. These decisions were based on the needs analysis and the collaboration that took place on the planning site.

Figure 2 is an example of the Strategy page on the planning site. Similar to a wiki, the design team could edit the page, provide comments at the bottom of the page, and add relevant attachments such as references and graphics. Google Sites also maintains a revision history in case there was a need to reference or revert back to a previous version of the plan.

PRELIMINARY STATE OF THE DESIGN

As the online community develops, we continue to observe, reflect and refine the community accordingly. Design of the CoP and subsequent data collection from the needs analysis began during the Winter term 2011 and continued through the Summer and Fall terms in 2011. The CoP was implemented at the beginning of the Winter term 2012 and the 13 students were invited to participate. At the time of writing this paper, the CoP has been active for two terms. Following is a description of the preliminary state of the design. Methods such as member checking, persistent observation, peer debriefing, maintaining a reflexive journal, and negative case analysis were used in order to capture, organize, and

describe the design process (Erlandson, Harris, Skipper, & Allen, 1993; Smith, 2010).

Member Checking on Initial Site Design

Once the platform was selected, the first author used the results from the needs analysis and the information from the planning site to design the research CoP. In early January 2012, the co-authors provided feedback on the look, feel, and content of the site. The major modifications included:

Simplifying the name of the research community by changing it from IDDCoP, which stood for instructional design and development community of practice to “instructional design research community.” Providing a more organized way of uploading documents and resources, which included specific naming conventions and instructions at the top of the page for uploading resources. Removing the “Membership” page. It was felt that there was minimal need for a membership page given most of the members already had a Google profile that included their photo. Embedding Google Groups in the Discussion page of the site. This integration enabled students to access the online discussions without having to leave the Google site.

The homepage of the research CoP is shown in Figure 3.

Links to pages include About Us, Announcements, Discussion Forum, Dissertation Tracking System (a proprietary database used to manage dissertation documents and one-to-one faculty communication), Events, GSCIS (the school’s web site), Library, Photos, Suggestion Box, and Web Links. Both students and faculty who are members of the research community are encouraged to contribute to any of the pages. That is, all users have editing permissions. The home page includes a welcome message that encourages students to participate as active members of the community by adding their own resources to the site and sharing their knowledge and expertise.

The About Us page (see Figure 4), communicates in more detail the research community’s goal, mission statement, faculty commitment and student commitment. The authors felt it was important to clearly articulate this information so that

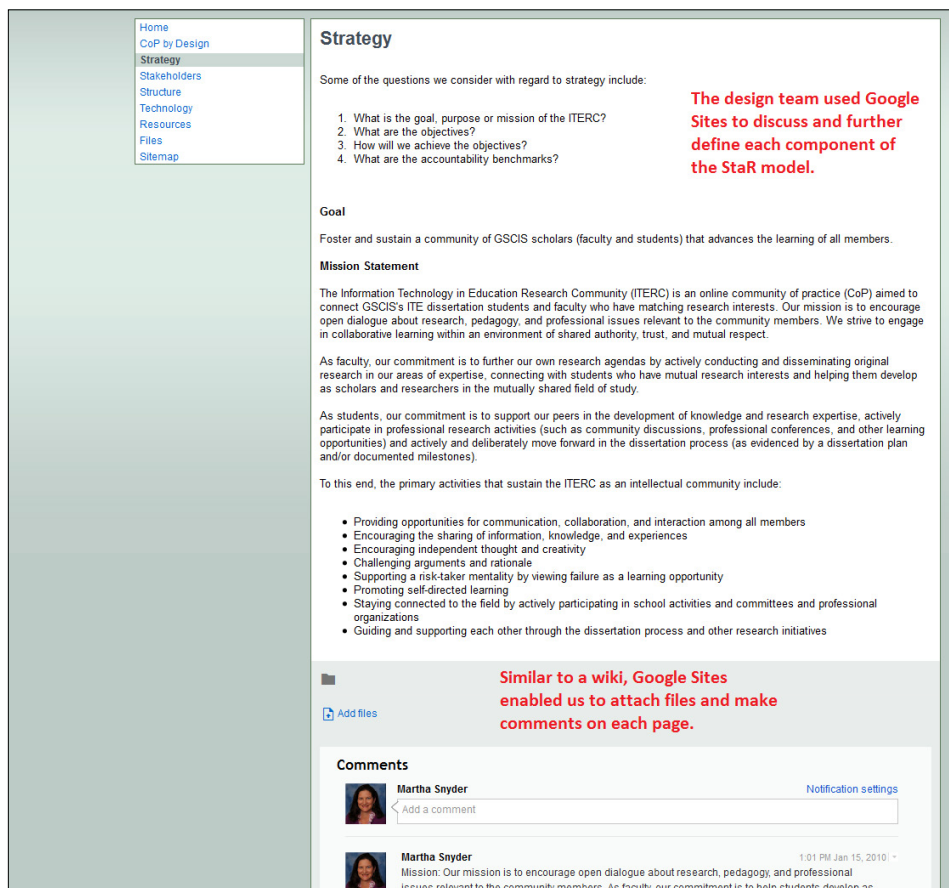


FIGURE 2. The design team’s planning site.

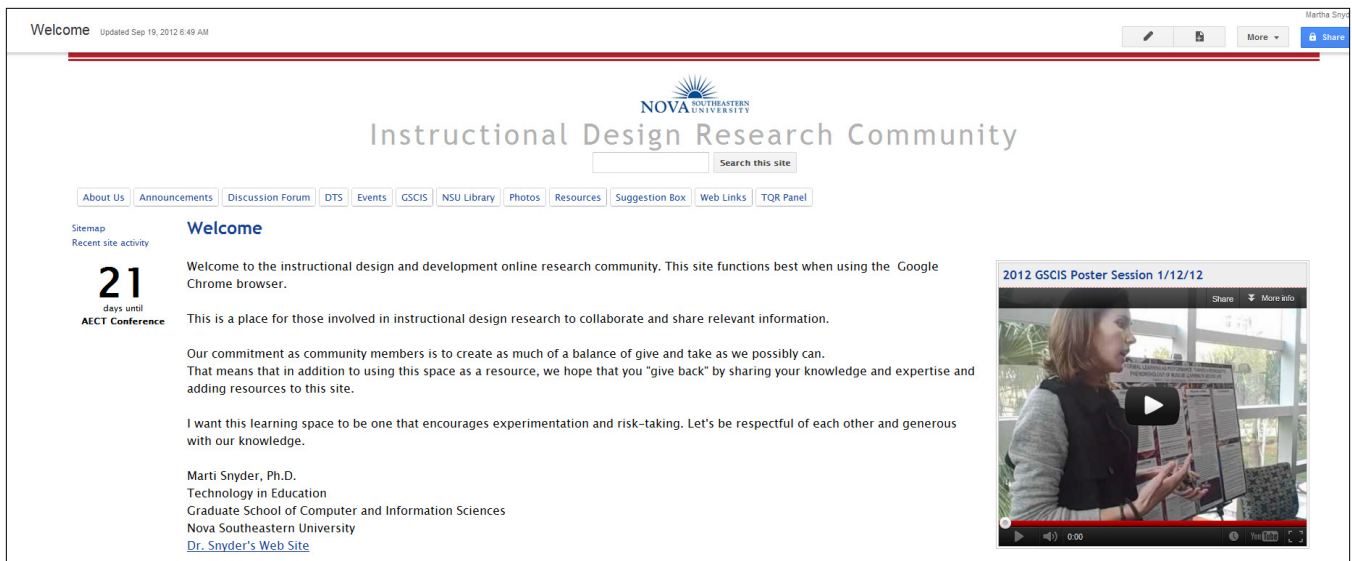


FIGURE 3. Instructional design research community of practice.

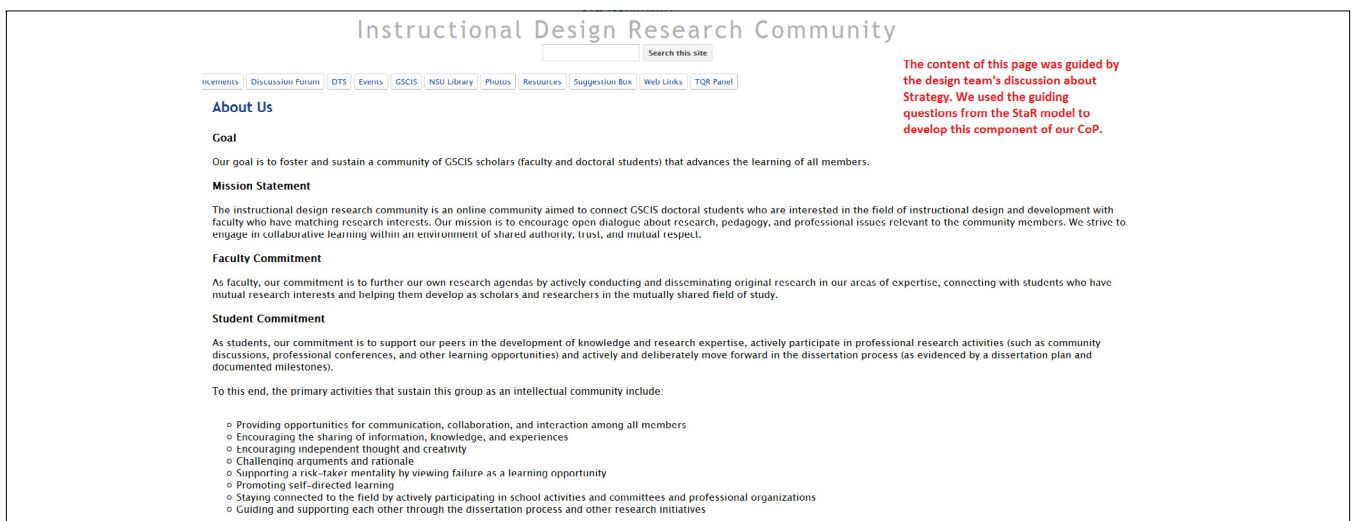


FIGURE 4. About us page.

students understood the expectations and how the research community could be used in conjunction with the school's proprietary DTS to support their dissertation research.

Site Launch and Persistent Observation

The research CoP was launched with the pilot group of 13 students at the beginning of the Winter term 2012. Students provided their Google Gmail addresses and an invitation was sent to each student inviting their participation in the community (See Appendix B). About three weeks after the launch of the site, all but three students were signed in and had posted introductions. Following is a note posted in the first author's reflexive journal about these first few weeks.

The online CoP has been up and running for about a week now and all but 3 students have signed in and introduced themselves in the introductions thread. I'm quite pleased with the response as students seem eager to participate in the community. One student already created a new thread relating to technical issues. This leads me to the question: How much should I get involved and how much should I leave to the students to connect and share? Should I create the discussion threads as I see fit? For example, I just created a thread called Accomplishments because one of my students just defended her dissertation yesterday and I wanted to share that success with the group. But the question remains, what is my involvement and how much should I initiate? Perhaps I need to wait and just give it some time to grow on its own.

Peer Debriefing

Lincoln and Guba (1985) define peer debriefing as “a process of exposing oneself to a disinterested peer in a manner paralleling an analytical sessions and for the purpose of exploring aspects of the inquiry that might otherwise remain only implicit within the inquirer’s mind” (p. 308). Peer debriefing enables the researcher to uncover biases, to test emergent designs, and become more aware of her or his own perceptions and assumptions about a phenomenon.

Once the community was underway, the first author needed to reflect on the community and get input on some of the initial design decisions but felt she was too close to the project. Kvale (2007) describes how the use of an open phenomenological approach to a life-world interview is helpful in understanding a phenomenon from another person’s view. Chenail (2011) also offers suggestions for addressing researcher bias and reflecting on phenomenological interviews. Following these guidelines, an interview protocol was developed and an interview was conducted with the second author with the following goals: 1) to understand the interviewee’s perspective—as a co-researcher and a faculty member—on what an online research CoP for dissertation student should be like, and 2) to gather her reactions to how the community is working so far. Once the interview was conducted, the first author transcribed the interview and asked the interviewee to review the transcript to confirm what was captured was accurate. Next, the first author analyzed the transcript by coding the data, creating themes, and

reflecting on those themes. Four primary themes emerged including: the meaning of community in our context, defining community, validating the CoP, and observations of the CoP. Following is a summary of each theme and its implication of future design decisions.

Meaning of community in our context. There are many types of online communities and CoPs, and they serve various purposes. As we continue to develop our CoP, we need to explore this idea of community in our context. That is, we need to think about community in the context of our program, our students, and our goals.

Defining community. While we know the textbook definition of a CoP and we understand the value of online communities and their ability to connect people, we are still defining community in our context as we develop our own community of dissertation students and the faculty who support them. We really don’t know exactly how community is defined yet because we are in the process of creating it.

Validating the CoP. How do we know the community is effective? What evidence do we consider in validating the value of our CoP? Should effectiveness be measured by observable progress towards completion of the dissertation? Can validation come from whether students feel more connected or more focused? Perhaps we need to look at a balance between the cognitive and affective domains of learning in the CoP.

Observations of the CoP. Initial observations of the CoP are generally positive. Since its launch in January 2012, the CoP is off to a good start. The look and feel of the site is clean and easy to use. The selection of Google Sites seems to be working well; however, it’s difficult to tell how much students are actually using the resources and links available from the site as opposed to the discussion forums since there was no provision in the design to track usage. Perhaps a follow up survey could be developed to find out what components of the CoP are most useful and what can be improved.

Students have introduced themselves and there has been active participation in the discussions. However, thought must be given to how to maintain productive conversation. Whose role is it to facilitate the discussion? Should students, faculty or both initiate discussions?

There are currently 13 students in the CoP and one professor. As we pursue this CoP design, we need to consider whether to expand the current CoP to include additional students and professors or create smaller CoPs that are more focused in a particular research area.

Now that the students have introduced themselves and there has been some general discussion about upcoming conferences, use of productivity tools, and dissertation goals, what’s next? How do we sustain the community?



FIGURE 5. Announcements page.

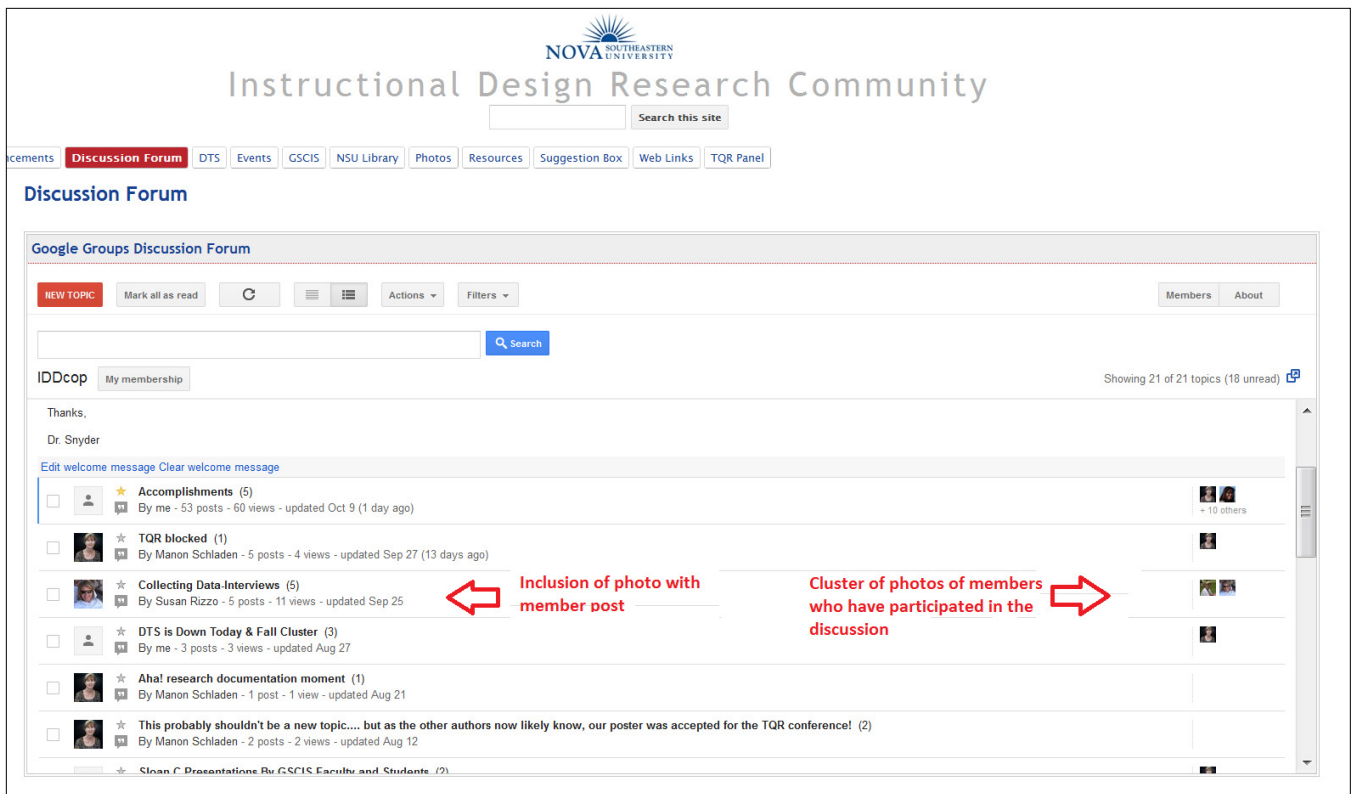


FIGURE 6. Discussion forum (Google Groups) embedded within Google Sites.

The Discussion Forum

The discussion forum (i.e., Google Groups) is the primary tool for interaction among the community members. One of the features of Google Groups is that the student's picture accompanies each post. There is also a composite picture of everyone who contributed to a particular thread making participation seem more real and visible. Another feature of Google Groups is its integration with mobile applications. Posts made in Google Groups are immediately accessible from smartphones and other mobile devices through email. Therefore, communication is pushed to the community member as opposed to the community member having to log into the site to see if there has been any activity.

To date, seven unique threads have been created in the forum; four (introductions, upcoming conferences, dissertation progress goals, and accomplishments) were created by the professor and three (building experience during the dissertation process, technical questions, and articles) were created by the students. While the forums have maintained steady participation, they are not overly active. Approximately one to two posts are made per week. It seems that students are aware of the forum and will use it if they have a need. From a professor's perspective, the forum has helped the professor feel more connected to the students as a cohort as opposed to having one-to-one relationships with each. The CoP has brought a greater sense of togetherness as if the members are all participating in an online course together. This sense

of togetherness encourages collaboration and camaraderie. For example, when a note was posted about a student's recent defense, students posted notes of support and congratulations to the recent graduate. Another example pertains to a recent post about a call for papers. One student suggested the members of a community submit one proposal as a group representing the CoP. As a result, the group of students along with their dissertation mentor submitted a proposal and it was accepted. This group will use the CoP as a workspace to develop the presentation.

THE USER EXPERIENCE

Screen shots of various pages within the site are presented to offer a glimpse into how the members of the community use the CoP. The Announcements page (see Figure 5) enables faculty and students to post important and timely information that members of the research CoP might find interesting and useful. Examples include acknowledgement of students passing major dissertation milestones such as the concept paper, proposal, and report; faculty and students whose papers have been accepted at professional conferences and professional journals; and information about upcoming calls for conference proposals, book chapter proposals, and professional organization nominations.

The Discussion Forum (see Figure 6) was developed using Google Groups and it is embedded within the Discussion Forum page of the Google Site. Students can access Google

Groups directly or via the Google Site. One of the most appealing features of Google Groups is the inclusion of student photos with their posts and a composite of photos of students who participated in a particular discussion thread. This feature facilitates communication and connection with fellow CoP members. The discussion forum is the most frequently used tool in the research community. Additional detail about the forum is provided as part of the section, "Preliminary State of the Design."

The Events page (see Figure 7) includes up-to-date information about upcoming conferences and special events with links to host's web pages and calls for proposals.

The Resources (see Figure 8) page includes a repository of papers, conference proceedings, and presentations that are relevant to the work each student is doing in the program. Like all sections of the site, both students and faculty are encouraged to contribute. To maintain a sense of order, specific naming conventions are used when uploading these resources. For example, each file contains the last name of

the author(s) and year (e.g., Terrell_Dringus_Snyder_2009). If there are more than three authors, the last name of the first author followed by et_al and the year is used (e.g., Snyder_et_al_2012).

Negative Case Analysis

The preliminary state of the design would not be complete if it did not include a discussion about aspects of the design that did not meet the authors' expectations. As the design develops, we may need to rethink the following design decisions.

First, with regard to members of the CoP, there was no plan for how to remove someone from the community. That is, while criteria were established for membership, there was no explicit plan for what to do if a student does not actively participate, switches to a different dissertation mentor, or leaves the program all together. It is important to think carefully about how to handle these circumstances and communicate these guidelines to the community members.

Please feel free to add an event.

[Add item](#) [Customize this list](#) Showing 11 items

Event Name	Date(s)	Location	Web Site	Notes
Sort -	Sort -	Sort -	Sort -	Sort -
ISTE				
SALT - New Learning Technologies 2013	03/6-8/2013	Caribe Royale - Orlando, FL	www.salt.org	
Sloan-C Blended Learning Conference	04/23-24, 2012	Milwaukee, WI	http://sloanconsortium.org/conference/2012/blended/welcome	
American Educational Research Association Annual Conference	04/27-5/1-2013	San Francisco, CA	http://www.aera.net/default.aspx	Proposals open for submission June 1 - July 22, 2012
ACM-SIGCHI	05/22-5/1-2013	Paris, France	http://www.sigchi.org/conferences/calendarofevents.html	
Society for Applied Learning Technology (SALT)	08/15-17, 2012	Reston, VA	www.salt.org	Call for Proposals Closed
Sloan-C International Conference on Online Learning	10/10-12, 2012	Walt Disney World Swan/Dolphin, Orlando, FL	http://sloanconsortium.org/conference/2012/blended/welcome	
AECT International Convention	10/30 - 11/3, 2012	Louisville, KY	http://www.aect.org/events/Louisville/default.asp?clientid=	Proposal Deadlines Proposals Open - December 15, 2011 Proposals Close - February 15, 11:59PM (EST), 2012
Frontiers in Education	10/3-6, 2012	Seattle, WA	http://fie2012.org/	Proposals Due January 31, 2012
E-Learn	10/9-12, 2012	Montreal, Quebec	http://www.aace.org/conf/cities/montreal/	
Educause	11/6-9, 2012	Denver and Online	http://www.educause.edu/E2012	

Showing 11 items

FIGURE 7. Upcoming events page.

Please feel free to upload scholarly articles, presentations, and other documents that you think would benefit our research community. So we can maintain some sense of order, please name your document with the last name of the author(s) and year (e.g., Terrell_Dringus_Snyder_2011). If there are more than three authors, use the last name of the first author followed by et_al and the year (e.g., Snyder_et_al_2009).

I have provided some folders below but feel free to add other folders as you see fit.

[+ Add file](#) [+ Add link](#) [Move to](#) [Delete](#) [Unsubscribe from changes](#)

File Name	Description	Size	Version	Date	Author
Assistive Technology (Remove)					
Cognitive Load Theory (Remove)					
Forella_Vogel-Walcourt_Schatz_2012.pdf	Applying the Modality Principle to Real-Time Feedback and the Acquisition of Higher Order Thinking Skills	95k	v_3	Jul 11, 2012 10:38 AM	Martha Snyder
Communication Theory (Remove)					
Communities of Practice/Online Learning Communities (Remove)					
Bateman_Gray_Butler_2011.pdf	The Impact of Community Commitment on Participation in Online Communities	260k	v_3	Feb 8, 2012 6:33 AM	Martha Snyder
Liu_Chen_Sun_Wible_Kuo_2010.pdf	Extending the TAM Model to Explore the Factors that Affect Intention to Use an Online Learning Community	351k	v_2	Jan 19, 2012 11:04 AM	Martha Snyder
Zhao_Bishop_2011.pdf	Understanding and supporting online communities of practice: Lessons learned from Wikipedia	323k	v_3	Jul 11, 2012 10:33 AM	Martha Snyder
Community of Inquiry (Remove)					

FIGURE 8. Resources page.

Second, while the research CoP is front and center for the authors who are all involved in this design case, the same is not true for the students. That is, during informal conversations with students about the CoP web site, the designer learned that some students were only accessing the discussions because they forgot to bookmark the actual web site. As the CoP develops, it is critical to communicate with students often about the CoP, how to access it, and where to find specific information. Reminders to bookmark the site as well as instructions on how to access the Google Group discussions from their mobile phones would also be beneficial. It would also be helpful to track the usage of each of the Google Site pages to identify the most popular areas of the site.

Third, as the community develops we are identifying different ways to use the web site to communicate and collaborate. For example, as the group works together to develop their panel presentation for an upcoming conference, we plan on using the research CoP as our workspace since the web pages in Google Sites have similar functionality of a wiki. For example, all members can edit pages, attach documents, make comments at the bottom of the page, and track history. We also anticipate a smooth integration of other Google tools such as Google Docs; however, we might discover the need to integrate other tools into the site that are not part of the Google product suite.

Fourth, while we have been able to use the 100 MB provided free through Google sites, we anticipate the need to purchase additional storage space. We have not determined whether smaller and more focused CoPs that align with specific research interests of one or two professors work best or whether we should consider expanding the CoP to encompass faculty and students from an entire program or even school. Regardless, given we are currently at 48% capacity with the pilot site already, we anticipate the need for more storage space regardless of whether we plan to grow the existing site or create additional smaller CoPs. Google Sites allows for this type of expansion through Google Apps Premier Edition.

Fifth, as the research CoP develops, we will continue to use and develop the StaR working model and use the design team's planning site to address issues pertaining to strategy, stakeholders, structure, technology, and resources. However, we also anticipate the need to use other models and frameworks to: 1) describe the learning process such as Garrison, Anderson, and Archer's (2000) Community of Inquiry (CoI); 2) design specific instructional strategies such as Merrill's (2007) task-centered instructional strategy that pertain to various aspects of the dissertation research process (see Snyder, 2011, November); 3) steward technology in learning communities (Wenger, White, & Smith, 2009); and 4) diffuse this intervention across the school and university using Rogers' (1995), for example, five stages in the innovation-decision process.

CONCLUSION AND NEXT STEPS

Design cases are guided by a naturalistic paradigm (Smith, 2010). As such, the full design of the study emerges as the data is collected and a preliminary analysis is conducted. The context of the case becomes clearer as the study progresses and therefore, the design remains tentative until it is implemented (Erlandson, et al., 1993). This is a case in progress. To date, the design team has been formed, the StaR model has been identified as the guiding framework for the design of the CoP, the needs analysis has been conducted, the participants have been identified, the CoP strategy has been defined, the site has launched, and students are just now beginning to become a part of this online community. It will take time to cultivate the community and determine whether the design is effective in achieving the community's goals. Data collection continues as the design and development of the online CoP emerges. As a pilot study, it is hoped that data collected from this design case will inform the future direction of dissertation support via research CoPs within our own graduate school and other schools who support dissertation students at a distance.

SCHOLARLY SIGNIFICANCE

Boling (2010) emphasized the need for rigorous design cases that "offer in-depth explanations of design rationales, rich and multi-dimensional descriptions of designed artifacts and experiences, and full reflection on design processes" (p. 6). Those who produce or request design cases have "determined that there is some element of the case the renders it particularly interesting" (Smith, 2010, p. 10). There are many interesting aspects of this case; however, the most unique is the population of students enrolled in a limited-residency doctoral program and the faculty who support them. The majority of these students are working professionals who have chosen a limited-residency program because of the flexibility it offers. Contrary to traditional full-time doctoral students, these part-time students do not interact face-to-face with their dissertation advisors or their peers on a regular basis and most of the communication happens in a virtual environment via phone, Skype, or other web conferencing tools. Faculty who supervise dissertation students at a distance seek ways to stay connected with their students and maintain a productive mentoring relationship as well as encourage camaraderie among peers in the program.

Interest in blended learning is increasing (U.S. Department of Education, 2009) and the number of colleges and universities that offer doctoral programs using a blended learning model is becoming more commonplace. At the same time, problems with attrition cut "across countries, cultures, and subject disciplines (regardless of delivery mode)" (Strang, 2009, p. 246). Models that support student-to-student and student-to-faculty communication throughout the dissertation process are needed (Terrell et al., 2011). It is hoped

that this case will inform future online CoP designs and the development of rigorous design cases guided by appropriate research methods.

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APPENDIX A

Needs Assessment Questionnaire

Dear [Student's Name],

Over the past several months, faculty and administration have implemented various practices, policies, and procedures to support our doctoral students – particularly during the dissertation phase. Examples include online resources such as the dissertation videos, on-site workshops such as our inaugural dissertation workshop held this past July, the the Leave of Absence and End of Term Status Reports.

Another idea we are working on is the development of an online community of practice (CoP) for doctoral students. To that end, we would like to get input from our current doctoral students – particularly those of you who are in the dissertation phase – regarding various aspects of the CoP.

Please take a few minutes to complete this short, 10-question survey. Your responses will remain anonymous and your feedback will be very helpful in helping us design online resources that best meet your needs.

1. What purpose would an online CoP for dissertation students dissertation serve?
2. How could an online CoP for dissertation students help you?
3. Please rank the following community activities in order of importance (1=least important and 6 = most important)
____ Sharing content (e.g., resources, links, articles)
____ Connecting with and supporting fellow dissertation students
____ Sharing ideas and strategies related to the dissertation with fellow dissertation students
____ Working collaboratively with faculty
____ Accessing experts (e.g., writing experts, methodology experts, time management experts)
____ Other (please describe): _____
4. What students should be eligible to participate?
 - A. DCTE students enrolled in Dissertation I, II, or Continuing Dissertation
 - B. DCTE students enrolled in an 800-level directed research course, Dissertation I, II, or Continuing Dissertation
 - C. All DCTE students regardless of what stage they are at in the program.
 - D. Other (please describe): _____
5. In addition to students, who else should participate as members in the CoP and what contribution could they make (e.g., other GSCIS doctoral students, faculty, others outside of GSCIS)?
6. How do you see your role in the community? What do you feel you could or should contribute?
7. What do you think you will gain by participating in the community?
8. What tools should be considered to support the community (e.g., for communication and collaboration, resource sharing, etc.)?
9. What kinds of information and resources should be shared in the community?
10. What additional suggestions do you have that we should consider as we design a dissertation community of practice?

APPENDIX B

Invitation to Pilot Participants to Participate in the CoP

Hello everyone,

I want to let you know that our online instructional design research community is now live. I have added each of you to both the site and the Google Groups (embedded within the site) using the gmail addresses you gave me.

Please do three things for me:

1. Add this site to your list of bookmarks or put it somewhere that you have easy access. The web site is: <https://sites.google.com/site/iddcop/>
2. Please visit the site to make sure you have access to it as well as the Discussion Forum (Google Groups). If you have problems accessing either, please let me know asap.
3. Please introduce yourself in the introductions thread in the forum. To introduce yourself, simply click on the Discussion Forum link at the top of the homepage and reply to the Introductions thread.

I look forward to sharing research interests, ideas, and opportunities with you. I hope we can use this space to connect with each other and help one another as we move through the dissertation process.