Using Social, Self-Directed Learning Frameworks To Engage and Transform Aspiring School Leaders

Naomi R. Boyer, ***University of South Florida-Lakeland***

Abstract

Life-long learning, reflection, and teamwork are all attributes that enhance leadership capacity and school reform efforts. Yet, the skills and the process to build these skills are not traditionally integrated into university coursework in teacher education or aspiring leader programs. A framework has been developed that incorporates social experiences, self-direction, metacognition and learning engagement into a technology integration course. This framework includes a series of scaffolds that were instituted in five successive semesters of the identical web-based course. A global model of social, self-direction has been developed to provide a theoretical foundation to support the process of this framework and is being studied through the lens of design-based research methods. Narrative accounts, surveys, and reflective instruments were used to garner data about student satisfaction and learning progress in investigating the question: What is the impact of social, self-direction scaffolds on aspiring school leaders' ability to plan, manage, sustain and complete personal/group learning experiences? These scaffolds have been found to have a tremendous impact on aspiring leaders' ability to self-manage. Students report a transformation in perspective and ability and report large scale impact upon authentic school environments. Further investigation would need to be conducted to evaluate long-term influence and additional model iteration.

Introduction

The online environment provides an opportunity to reform current educational

practice by adapting teaching pedagogies to encompass adult learning theory. It is imperative in higher education that adult learners are granted the freedom and the guidance to actively engage in the learning process at both the undergraduate and the graduate level. The "Seven Principles for Good Practice in Undergraduate Education" provided by Chickering and Gamson (1987) can be used to gauge effective learning in both face to face and distance opportunities. These principles include: student/faculty contact, active learning techniques, prompt feedback, cooperation among students, time on task, and communication of high expectation (Chizmar & Walbert, 1999; Skill & Young, 2002). What emerges at the juncture of "good practice" and adult learning "self-directed" philosophies is a framework that encourages personal responsibility of learning, social engagement, reflective practice and continued life-long learning strategies.

The framework and model of learning described above will be introduced throughout this paper. Issues such as reflective practice, learning scaffolds, self-directed learning, and learning patterns will be reviewed. This study explores the following basic research question. What is the impact of social, self-direction scaffolds on aspiring school leaders' ability to plan, manage, sustain and complete personal/group learning experiences? A model of social, self-direction was utilized as the program structure and the research method includes the use of design-based research approaches for investigating effectiveness. A study has been conducted with aspiring school leaders and has been through five iterations of adaptation. The findings will be described and conclusions explored.

Designing Educational Environments That Support Leadership Development

Leadership development, particularly school leadership, has been found to be closely tied to self-knowledge which can be facilitated via personal reflection (Kouzes & Posner, 1995). Barth (2001) imparts the importance of reflection in the following excerpt:

> It is through reflection that we distill, clarify, and articulate our craft knowledge... Reflection is precisely the capacity to distance oneself from the highly routinized, depleting, sometimes meaningless activities in which we are engaged, so that we can see what's really going on. (p. 65)

School leaders also need to engage in goal setting to demonstrate and model for their organizations the way to continue learning and personal improvement (Barth, 2001). Including reflective opportunities and reflective devices throughout the process of learning is a way to regularly think about leading and learning (Lambert, 2003).

Using self-directed learning scaffolds in online environments is a highly effective way to both involve students in the act of learning and re-direct the traditional framework from "teacher-centered" to "learner-centered" instruction.

The establishment of scaffolds to support novice learners coupled with a steady progression to remove structure as students gain knowledge, confidence, and skills can increase independence and encourage self-regulated patterns (Dabbagh, 2003). The term scaffold here is used to represent the creation of a support system to assist learners in the development of a personal learning plan coupled with reflective mechanisms that provide a clear structure, yet allow for the removal of traditional boundaries as the learning process progresses. Some noted boundaries that can be minimized through the use of these tools include: instructor identified final products, non-relevant meaningless work, date/time limitations, lack of flexibility and adaptation, and narrow confines of evaluation and assessment.

Self-directed learning has generally been considered an individual facet of the learner rather than oriented toward community learning experiences (Long, 2000). Consequently, the use of self-directed tools such as learning contracts, diagnostic instruments, and reflective participation have not been explored for application in joint endeavors, as a means to identify a common goal, plan, and overall educational direction. Students using these frameworks have the ability to invest in the learning process, utilize meta-cognition to relate to others and participate in the assessment and evaluation to reflect on learning outcomes. Combining the concepts of socio-cultural learning (Vygotsky, 1978) with the adult learning philosophies of self-direction (Knowles, 1975) provides a landscape for the emergence of an active learning model that minimizes isolation, propels learning community development, and institutes a means for communication, planning and individualization.

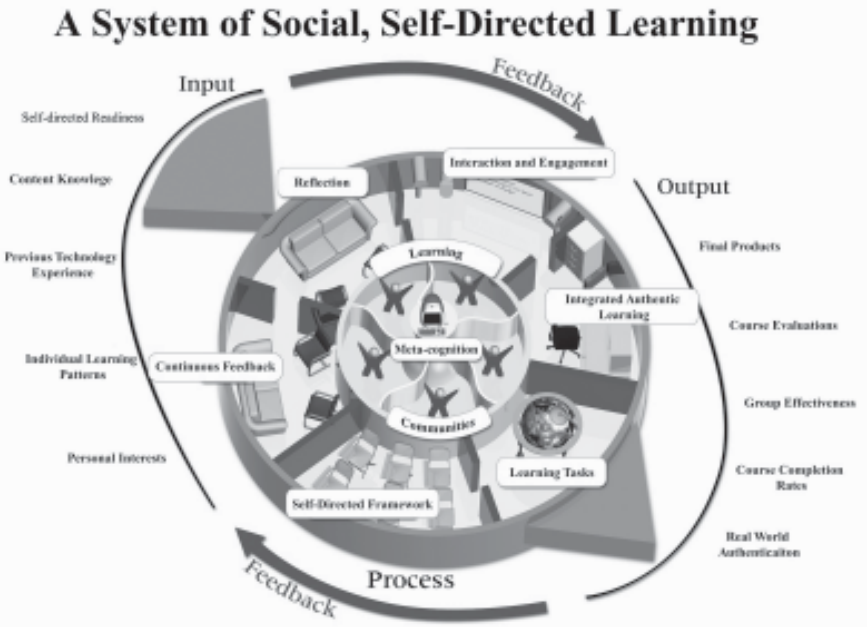
In a model developed by Boyer (2000), the online learning environment is viewed as a complex system. The initial model has been re-designed to accommodate the aspects of online, social, self-direction included in this study (see Figure 1). The model utilizes a systems framework of input-process-output that is surrounded by a continual feedback loop. The specific question of interest in this study was designed to investigate the appropriateness of self-directed instruction with aspiring school leaders.

Methods

The Implementation Design of the Scaffolds

A course design that incorporates social, self directed learning scaffolds, reflection (meta-cognition), leadership development philosophies and "good practice" has been adapted within five successive semesters (20 month time frame) of the identical course title. Two additional sections are currently in session. This study involved 123 Educational Leadership graduate students in a technology integration course required within the Masters program. As a web-based designated course, students spent more than 75 percent of class activity online. Essentially, the course is blended in format with an initial course orientation meeting (seven hours) and a final sharing session (three hours). All other course interaction and work is

Figure 1.
A Systems Model of Social, Self-Directed Learning Incorporating the Online Environment into the Process Elements



completed online. The course structure was modified based on student feedback, results of the Learning Combination Inventory-LCI (a cognitive learning styles instrument), course objectives, diagnostic instruments, learning contracts, online discussions, and course products. A course evaluation was also designed to gather information on particular facets of online course satisfaction.

Each of the data collection tools mentioned above was also utilized as a learning strategy for student development. For instance, the LCI is given to students at the beginning of the semester to not only collect valuable group information, but also to provide self-awareness and strategies that assist individuals in planning and completing individual and group work. This learning pattern information is then used strategically throughout the semester to have students meta-cognitively examine their learning processes as they progress individually and collectively throughout the course. Group compilations of the LCI are shared a few weeks into the semester so that all have an awareness of the group's strengths and weaknesses and then helpful hints are given to make their experience more successful given the make-up of the group. A research team member provides this information to the groups and maintains a role of "meta-cognitive coach" throughout the semester to assist groups in processing learning pattern information.

A learning contract process is provided and clearly defined as the structure for students to guide their online learning experience. Students begin by completing a diagnostic instrument, in which they rate their current knowledge base and necessary proficiency for professional competence on course objectives. This diagnostic instrument then provides the information necessary for creating individual and joint learning contracts. The group (or individual) then selects five objectives that they are less knowledgeable about and that they value as important to their role as a future administrator. Of the five objectives, at least three objectives are required as part of the group work, while two would be completed individually. Groups can choose to complete all five objectives as joint projects. These objectives are then transferred to the learning contract, strategies and resources are identified from course content and other materials, dates are selected, evidential products planned for final objective demonstration and decisions made about who and how the final evidence will be authenticated (verified for quality and content). Students can request workshop meetings, additional materials, and other face-to-face experiences as part of the resources and strategies. At the end of the semester, students complete a grading contract to reflect on their individual/group competency and completion of learning contract objectives. The steps of this process are explained, demonstrated, and practiced during the full-day session "orientation" at the outset of the course.

Students are required to participate in the online setting to maintain an engagement in the course and a connection to others. Participation is defined in the class as logging on the course site at least three times a week, answering e-mails in a timely basis, and reading discussion room threads and responding where appropriate. Students evaluate/reflect on their own participation rates, quality and quantity through an online-discussion self-rating form, which is included in the final grading procedures. All technologies are encouraged to facilitate group member contact, such as chat, instant messaging, video-conferencing, conference calls, faxing, and face-to-face meetings when necessary. Each student is also required to complete a student homepage to facilitate classmate recognition as a reduction of isolation. Feedback is provided to all students on a daily basis, via discussion board and e-mail responses.

Not only is the scaffolding process aligned to what is known about learning and retention found in current research, but this process also leaves an audit trail that is clearly helpful in most university accreditation and record keeping processes. The continual improvement, student feedback, and work outcomes establish evidence of successful learning while also satisfying guidelines for quality control assurances. This scaffolding also increases reflective activity needed to integrate self-awareness and greater content understanding.

Data Collection

Design-based research methods were utilized to further involve theory development, model replication and empirical emphasis in the investigation of the innovated scaffolds for facilitating the social, self-directed phenomena. The design-based

research format incorporates collaboration, model verification, complex system investigation, diverse data collection techniques and reform (Cobb, Confrey, diSessa, Lehrer, & Schauble, 2003; Shavelson, Phillips, & Feuer, 2003; Sloane & Gorard, 2003). This particular study question (What is the impact of social, self-direction scaffolds on aspiring school leaders' ability to plan, manage, sustain and complete personal/group learning experiences?) was used to explore the outcomes of the systems model on the aspiring leaders studied in this implementation of the design. Outcomes here refer to the perceptions of personal relevance, impact on external organizational environments and improved learning self-efficacy. Despite the overall continuing research using design-based research methods to improve and refine model design during iteration testing, this particular study incorporated open-ended narrative questions and surveys to specifically study the phenomena in question.

Students were asked to complete periodic personal reflections that were initially offered at the outset and the finality of the program and then in later phases emerged as a reflective tool throughout the course (approximately five times throughout a semester). Some of these reflections were offered via email, while others were provided on the online discussion board open to all students. Students always maintained the option of sending reflective comments directly to the professor via email, to ensure privacy issues. The grading contracts and online rating forms mentioned as part of the implementation design also contained valuable personal information as to the student's perception of the experience and were submitted privately to the professor.

Researcher designed course evaluations also provided valuable completion information including course relevancy, significant student learning, perspective shift and overall satisfaction. These evaluations included 18 questions and were submitted anonymously to the professor during the last week of class and were in no way linked to student grades. Students could choose to opt out of completing these non-university sponsored evaluations.

These tools were compiled across semesters and analyzed for general themes that emerged across reflections, forms and surveys. Three semesters of reflections and five semesters of course evaluations were used as substantive data to determine student personal growth and transformation. Given the design-based approach used in the comprehensive research, each semester contained iterations to address issues that were raised via the reflective tools mentioned above (Cobb et al., 2003). Therefore, while the overall structure of the course was identical in four out of five semester offerings of this class (the first pilot semester was significantly different), some interventions and curricular alterations were instituted to further enhance educational outcomes. The research methods described above were embedded into the learning features of the course rather than as external instruments, thereby reducing additional student work load and increasing student commitment. Descriptive statistics were compiled from these sources and were used to support themes.

The roles of researcher and professor where held by the same individual, however a research team was continually involved through collaboration to design

interventions, supply content for students, and collect and analyze data, which is described by Zaritsky, Kelly, Flowers, Rogers, and O'Neill (2003) as integral to the design-based approach. This research was conducted in an authentic setting and includes a variety of mixed methods that are tied in this phase of model-design research to narrative accounts.

Results

All 123 participants in the study (all of those enrolled over the five successive semesters) successfully completed the course. This high completion rate indicates a sustainable online learning environment with no student attrition despite a student population with diverse technology skills. Every student in semesters two to five completed the following tools: diagnostic instrument (self-rating), learning contract, grading contract and online participation rating form. Learning contract objectives were individualized to group and personal needs and were achieved at a variety of competency levels; however all participants earned letter grades of B or higher. The initial orientation session, the full day overview of course materials, online courseware, learning style exploration and learning contract theory/application, was found to be overwhelming to the majority of students. However, the disequilibrium that was established at the outset was greatly reduced as the learning contract planning process was complete. One student, Kathy indicates, "I have learned today that I feel very uncomfortable when I don't know EXACTLY what is going on. I think once I actually get started on creating and finishing our goals I will feel much better." This sentiment was reinforced throughout the semesters, and while students felt off-balance, an atmosphere of continual feedback, mutual trust and supported risk taking was established to assist in the transformative learning process. The overwhelming nature of this initial face-to-face meeting was explained to students as part of the natural learning curve and was reinforced by an e-mail from the professor to all students. Betty, a student in Semester 4, responded to the orientation reflection prompt and professor assurance, "Okay! I thought I was the only one with that feeling, a sort of internal warning system letting me know I was in the wrong degree program! But of course, with a little time of "reflection," I felt much better about it. So thanks for letting me know I was NORMAL!"

Students had time during the initial session to collaborate in their self-organized group to establish a first draft and/or direction for their joint objectives (as previously mentioned students could choose to do three to five group objectives) with professor support and guidance. These draft documents were then electronically submitted after the first week of class. Professor feedback and suggestions were then sent back to the student groups (same process employed on individual objectives). Students made negotiated changes and then submitted final copy to the professor. Anxiety levels began to decrease as these learning contract documents were approved and learning planning complete. Even though personal

learning autonomy was new for the majority of the students, by the end of each semester students reported course relevance on an open-ended course evaluation question as the following:

- ◆ I feel that the independent structure and accountability lends to optimum learning.
- ◆ I liked that I was able to learn what I wanted to learn not what someone told me I was going to learn. I got to choose what I wanted and that was great because I know what I am weak in and where I need help.
- ◆ I always wanted to take and online class. It [the course] definitely put me into a comfort zone and forced me to think about learning styles, group vs. individual work- it made me think.
- ◆ I really enjoyed doing activities that would benefit me! Many of my courses have been filled with busy work that is not applicable to my pursuit of an administrative position. I know that the skills learned in this course are relevant to me not only in my profession life, but my private life as well.
- ◆ It was practical and meaningful because I was able to choose areas that I felt were important. I chose the areas that I felt I needed to work on most. I realize now there is way too much to learn in one semester.

Therefore, despite an initial sense of fear, confusion and pressure directly derived from being overwhelmed by new skills, content and the unknown, the aspiring leaders in this program demonstrated an ability to plan their own learning environment. The reflective documents (online discussion rating forms and grading contracts) did indicate that some had difficulty maintaining appropriate time management skills and were "forced" to be conscious of time elements, in ways that other face-to-face courses did not require.

While all students met with a level of success, not all students enjoyed or realized the full potential of this format of learning. Each semester there were two to three students who reported having concern that without professor guided instruction (instructor lecture and assignment guided in a face-to-face environment) they were not garnering the necessary skills or knowledge. There was also a concern that if students did not expend effort that they could complete the course with little work. Mike suggested, "The way that the course is set up now ("pick-and-choose"), someone who is computer-savvy could join a group with a couple of people who don't even know how to turn on a computer and coast through the 10 weeks [summer session] without even working." This statement suggests a lack of personal accountability and a mistrust of the learning maturity level of others. While, this outcome is entirely possible within the scaffolds and design of the course, learners in any environment always have the option of "squeaking" buy with little to minimal work/commitment. Personal responsibility for learning is devel-

oped by engaged students who find the value in continual growth, learning, and development despite the hard work and time investment.

The majority of student groups completed objectives that met a standard far exceeding instructor expectations. These Master's level students, in some cases, chose to conduct extensive research, collect data, analyze data and prepare presentations. Other groups completed presentations on legal, security and privacy issues, which were also delivered the local school district administration. Evidential products were planned, managed and completed that provided knowledge demonstration of both skill and conceptual competency. Many student groups also chose to integrate evidential products together reflecting a high degree of analysis and synthesis of initial objectives. In the final class reflection students reported:

- ◆ It's important for an educator and administrator to stay alert to new developments and always be willing to learn. I've learned that the Internet itself is an educator. There are many tutorial sites, information links and endless amounts of information. This class has also taught me that distance doesn't matter.
- ◆ There was a time when I would insist that I do most of the work, mainly because I didn't trust my partners to do a good job. Because of time constraints and knowledge about the personalities of my teammates, I was able to 'let go.' Learning about our strengths and being able to communicate to them was very powerful.
- ◆ I learned to be more independent with the computer. Just keep trying and eventually you will muttle your way through.
- ◆ I learned more than anything that learning is a great reward unto itself.
- ◆ I learned how to deal with my learning "discomfort" as well as my learning styles . . . So I learned a lot about myself and technology too.
- ◆ I look forward to a lifetime of using the tools that are available to me through Technology.

Students learned not only about the objectives that they selected, but about themselves; their strengths and weaknesses, their learning preferences as to face-to-face or web-base class opportunities and their ability to work with others to complete an end product were all indicated as side issues to the technology integration content of the class. A reduction of fear of the unknown and the ability to "play" with technology avenues to find solutions was also reported as significant learnings of the course. The end of the semester, half day meeting allowed students to see the final products of their classmates and groups and evaluate their accomplishments in terms of peer standards. No two group/individual projects, learning contract evidence and or presentations were the same and all marveled at the output projects that were accomplished in one semester's time, despite the differing learning levels.

The impact of these scaffolds also proved to be extended into the lives of the students via school involvement and personal exchange. Student work was authenticated (quality and content verified) by experts embedded within professional settings, who then provided documented feedback through a variety of methods. Many students had checklists, evaluation forms, written feedback, personal reflections and other forms of verification completed by technology specialists, principals, lead teachers, media specialists, district representatives and other experts "in the field." Students reported on final reflections and course evaluations, that course products and or new projects were being used in their current classrooms, school settings or districts. The time invested was having a direct impact on altering the authentic environments of the aspiring leaders, which would then provide opportunities for others to recognize their skill in preparation for new leadership positions.

Conclusions

At the conclusion each semester, it was evident that the self-directed learning framework was able to be successfully applied to a group learning format in the web-based setting. Rather than controlling the mechanisms of learning and disseminating knowledge, the online instructor was able to structure scaffolding, through which the facilitation of learning process was encouraged. The provision of opportunity was confirmed by student success, satisfaction and retention. It was possible to give attention to both group and individual requests throughout the course semester. At the end of each semester, many of the participant students felt that they were now better prepared to explore further learning in this format.

Learning contract documents supplied documentation of the aspiring leaders' ability to plan personal and group learning experiences to meet needs, interests and areas of importance. The learning contract included target date identification, which encouraged students to focus on personal time management and planning. Dates could be adapted as the learning contract represented a living breathing document; however, students were limited to the completion date of the class. Students reported that this was difficult at times, but that their personal planning skills improved due to this process. The final, successfully completed evidential products provided evidence of the sustainability, management, and follow through on work and plans. Involvement of external verification sources demonstrated student ability to expand learning into community activity and extend learning from a personal private enterprise into a socially constructed, authentic achievement.

Given the hands-on learning focus of this approach and the skill-based nature of the course content, student comments indicated an immediate transfer of knowledge to work environments. Students, in both classroom and administrative settings, reported new technical skill usage. An example of this transference is expressed by Sally, "Even though my coursework is nearly finished, I have taken most of my learning goals and objectives and am now converting those for my classroom in

August...More work and this time no grade!" Semesters later students returned to report how they had used their new skills to complete school based tasks and or transform their schools in regard to technology integration. The value of this ongoing incorporation of skills within the work environment is meaningful for the student, the university and the school work place. Some also indicated an inclusion of a choice-based curriculum and/or learning pattern approach, in their own classrooms.

Future leaders require key abilities for successful leadership in schools and life. Some of these abilities include: reflection, personal responsibility, continual learning, time management, organizational facilitation and change, and strategic planning. Most traditional university courses do not provide strategies for addressing the characteristics listed above. The described course design has provided the opportunity for students to not only learn about the course content—technology integration, but also to use adaptable scaffolds with guided support and facilitation to take charge of personal learning experiences. Not all course participants reported a high satisfaction with this design and model. In fact, a minority reported preferring to be teacher guided with explicit instruction and assignments. There appeared to be a link between level of self-directed readiness and satisfaction within the social, self-directed environment. The students who needed to be other-guided rather than self-guided tended to express a need for additional face-to-face opportunities. Ongoing participation and engagement on the discussion boards was also a key element to those who reported success and increased knowledge.

Additional iterations to current semesters have been instituted to account for some of the issues that were raised by the groups described above. The basic course design has once again remained the same; however, weekly resources have been added as a prompt to address the personal accountability issue that was raised by a few concerned students. Many felt that there was so much information and material around them that they were unsure which was important to explore and which they should bypass. Therefore, these weekly resources provided quality materials that students could explore and discuss and could be used to further their contract objective completion. This appears to have been a highly successful intervention.

The particular study described above, focused upon a particular group of students in an isolated course. In this setting, the model has been quite successful and has been found to increase online engagement, reduce isolation and encourage the building of necessary leadership skills by having an impact on the personal and professional lives of the aspiring leader. Despite this success, the fact that this model is not replicated in other portions of the program limits the generalization of skills to other learning experiences. Statements such as, "I now have the hang of this, what other courses can I take that are of similar design" have frequently been heard. Other current research projects include the design of a program for health education leaders that applies this type of learning model to an entire program (a series of courses, in cohort format, that includes an overarching program contact). To continue the design-based research method and pinpoint components of the model

for study, other individuals, settings and studies will be added to existing research to extend the impact and implications into a larger population including more generalizable features and validity checking of constructs and schematics.

References

Barth, R. S. (2001). *Learning by heart*. San Francisco: Jossey-Bass.

Boyer, N. R. (2000). *Building online learning: System insights into group learning in an international online environment.* Unpublished doctoral dissertation, University of South Florida.

Chickering, A. W., & Gamson, Z. F. (1987). Seven principles for good practice in undergraduate education. *AAHE Bulletin, 39*(7), 3-7.

Chizmar, J. F., & Walbert, M. S. (1999). Web-based learning environments guided by principles of good teaching practice. *The Journal of Economic Education, 30*(3), 248-259.

Cobb, P., Confrey, J., diSessa, A., Lehrer, R., & Schauble, L. (2003). Design experiments in educational research. *Educational Researcher, 32*(1), 9-13.

Dabbagh, N. (2003). Scaffolding: An important teacher competency in online learning. *TechTrends: For Leaders in Education and Training, 47*(3), 39-49.

Knowles, M. S. (1975). *Self-directed learning*. New York: Association Press.

Kouzes, J. M., & Posner, B. Z. (1995). *The leadership challenge: How to keep getting extraordinary things done in organizations*. San Francisco: Jossey-Bass.

Lambert, L. (2003). *Leadership capacity for lasting school improvement.* Alexandria, VA: Association for Supervision and Curriculum Development.

Long, H. B. (2000). Understanding self-direction in learning. In H. B. Long & Associates (Eds.), *Practice & theory in self-directed learning* (pp. 143-150). Schaumburg, IL: Motorola University Press.

Shavelson, R .J., Phillips, D. C., Towne, L., & Feuer, M. J. (2003). On the science of education design studies. *Educational Researcher, 32*(1), 25-28.

Skill, T. D., & Young, B. A. (2002, Winter). Embracing the hybrid model: Working at the intersections of virtual and physical learning spaces. *New Directions for Teaching and Learning, 92*, 23-32.

Sloane, F. C., & Gorard, S. (2003). Exploring modeling aspects of design experiments. *Educational Researcher, 32*(1), 29-31.

Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes.* Cambridge, MA: Harvard University Press. (Original work published in 1934).

Zaritsky, R., Kelly, A. E., Flowers, W., Rogers, E., & O'Neill, P. (2003). Clinical design sciences: A view from sister design efforts. *Educational Researcher, 32*(1), 32-34.

About the Author

Naomi Boyer is Director of Distance Education for the Lakeland Campus of the University of South Florida. As a faculty member, she assists instructors with the process of building and converting courses to an Internet format, through both web-based and web-enhanced options. She facilitates the training and development of both faculty and students in the appropriate platforms necessary for course participation, and teaches in a variety of programs. Current research agenda includes the creation of a model of social, self-direction and the impact of this instructional design on adult learners in a variety of delivery media.