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To: skorach@du.edu; Lyndsay Agans
Cc: Matt Militello (matt_militello@ncsu.edu); Friend, Jennifer I.
Subject: JRLE Manuscript - Revisions Requested by October 6
Importance: High

Good afternoon,

We have received feedback from the JRLE Editorial Board regarding the manuscripts for the special issue focused on instructional technology in principal preparation programs. You made the revisions as we requested, and the editors now have some additional edits. We have a short time window to return the manuscripts with these revisions, because the issue is scheduled for publication in December.

Please make the changes that are requested in the attached documents and return to Matt & Jennifer no later than Thursday, October 6. This will give authors two weeks to make the revisions and return the manuscripts. If there are any comments in your JRLE Editorial Board feedback that ask you to erase weblinks for your associated articles, please ignore these. The JRLE will be published with the associated live weblinks to the authors' artifacts associated with each article. Be sure to address all other changes requested by the editors.

Thank you,
Matt & Jennifer

Korach, S. & Agans, L. (in press). From ground to distance: The impact of advanced technologies on an innovative school leadership program. *Journal of Research on Leadership Education*.

Abstract

An educational leadership preparation program for the 21st Century not only makes use of innovations in teaching and learning, but pushes the educational experience forward through the effective use of advanced technologies. This idea frames the delivery methodology for a blended online principal preparation program. The blended online program was designed upon the foundation of an existing innovative classroom-based principal preparation program. The technology enhanced program relied on three instructional technologies: high-participation threaded online discussions through Blackboard, the use of digital portfolios for project management and evaluation, and the establishment of online communities of inquiry and supportive networks. Since the classroom-based and blended online principal preparation programs share a common evaluation framework and project design, this consistency offers a unique opportunity to explore the impact of the utilization of advanced technologies in the delivery of a professional preparation program. Initial findings reveal that program participants in the blended online program report similar outcomes as those in the classroom-based program. The power of the field-based inquiry projects and the implementation and impact of the technologically advanced delivery system are discussed along with implications for program development.

**From Ground to Distance:
The Impact of Advanced Technologies on an Innovative School Leadership Program**

An educational leadership preparation program for the 21st Century not only makes use of innovations in teaching and learning, but also pushes the educational experience forward through the effective use of advanced technologies. This idea frames the delivery methodology for a blended online program (BOP) for principal preparation. The BOP was designed upon the foundation of an innovative classroom-based partnership principal preparation program which featured collaborative partnerships with districts and field-based learning as the pedagogical model. The findings suggest that the power of the inquiry-based leadership preparation pedagogy transcends the delivery model of the program. The result is a sustainable leadership preparation framework that is not dependent on a singular mode of delivery.

The innovative classroom-based principal preparation program (ICP) began in 2002 when a private university and an urban district worked together to create a field-based principal preparation program based on the district's existing needs and goals. The program content was built from an apprenticeship perspective based on the leadership needs of the participants and their schools (Korach, 2005). The ICP integrated coursework and principal standards into five field-based inquiry projects. This article presents the transition of components of this highly successful personalized partnership program (ICP) to a blended online program (BOP) (Orr, 2011).

Background

The mutual partnership characterized by co-creation and co-facilitation made the ICP vulnerable to the politics of the university and the district (Korach, 2011). If the leadership of either institution withdrew support for the program, it would cease to exist. University faculty

were curious about the potential to offer a project-based program without the district partnership and explored options to transfer the powerful learning experiences to a more sustainable structure. In addition to the ICP, the university offered other partnership programs and a campus-based program (CBP). The CBP consisted of 24-quarter hours of coursework and six-quarter hours of a field-based internship within a cohort structure. Program graduates of each of the university's principal preparation programs were given the opportunity to share their perceptions of the quality of their program through the School Leadership Preparation and Practice Survey housed at the Utah Education and Policy Center. This survey provides the university with intra-institutional data on the perceptions of participants in the quality of their program. In 2007, Margaret Orr compared the program graduate survey results of 13 institutions and 17 programs across the United States (Orr, 2011). The results of this study revealed a difference between the responses of graduates from the ICP and the CBP (Korach, 2008; Orr, 2011). Program graduates in the ICP identified their program as highly rated in all seven core program features (Challenging Program, Leading Learning Content, Active Learning Instruction, Knowledgeable Faculty, Cohort Membership, Positive Student Relationships, and Supportive Organizational Structures). These results were the highest within the sample of 17 programs including that of the CBP. The disparity between the perceptions of program graduates of the ICP and CBP regarding the quality of program features led to the decision to change the CBP.

Initial program change centered on transitioning the traditional program to an online delivery model. This structural change and the results of the Orr study (2011) were levers that opened the box of traditional coursework and allowed an exploration into the benefits of discrete courses versus field-based projects. As the transition from classroom-based to online delivery continued, the potential of utilizing the core project-based structure of the partnership program as

the focus of online modules emerged. As previously described, the ICP was personalized and built around the power of developing a strong network and learning community. Would it be possible to transition this highly person-dependent program into a blended online model? Is it possible to develop strong learning communities in an online delivery model? The development of the project-based online modules was conceptually simple because there was an existing framework for projects; however, the complexity of transitioning an organic program to online delivery was underestimated and the capacity of this online derivation to transform candidates' thinking and develop a powerful learning community was uncertain.

Innovative Classroom-Based Program Features

The goal of the ICP was to challenge the status quo of the district by “developing courageous and effective instructional leaders for urban schools who are knowledgeable, highly skilled and relentless in their commitment to building learning communities designed to accelerate the achievement and success of every participant” (Korach, 2005, p. 3). Rather than organizing learning into a given number of semester credit hours of traditional coursework, the curriculum featured the following participant-centered components:

- A year-long internship in an urban school, offering candidates an immediate real-world context in which to apply their learning, with mentoring by a practicing principal.
- Standards-based coursework that centered on five inquiry projects that engaged candidates in the reform work ongoing at a district school and contributed to the school's capacity to improve.
- A multi-day summer retreat and weekly six-hour classes that grounded participants in the program's theoretical framework and values and built a learning community.

- An emphasis on developing not only leadership skills, but also the dispositions and habits of mind integral to ethical and responsible leadership in this urban district.

The initial core faculty of the aspiring principal program was a three person teaching team that represented a blend of practitioner and theoretical strengths. This faculty collaboratively planned the instructional experiences and projects and then delivered the instruction as a team during the retreat and weekly classroom sessions. The three person team allowed participants to hear differing perspectives and experiences as they were introduced to and worked with issues around the principalship; experts were brought in to speak to specific issues. Additionally, the core faculty served as coaches for the participants in their internship roles at a district school. Program graduates praised the value of their learning community and the opportunity to connect their learning to the real work of a school through the five inquiry projects (Korach, 2005). The program design blended the work toward principal certification with leadership work at a school. The participants were engaged in a spiral process of bringing their school experiences into the classes, taking action at their school informed by the learning from the classes, analyzing and reflecting on these actions, sharing their analysis and reflection in the classroom, and identifying new actions, et cetera.

Conceptual Framework of Blended Online Program Design

The transformation of this innovative classroom-based program to a distance program embraced this spiral process that connects the work in schools to the work in the program. The place of connection became the online learning environment rather than the weekly classes, and the context for application was the participants' schools in multiple districts rather than a school in a partnership district. As the online learning community emerged, the power of the inquiry projects was revealed. This application of innovative technologies was grounded in ICP's

successful project-based and integrative learning environment that used the participants' context as the unit of analysis and site for critical inquiry and a leadership practice field. The utilization of technology actually enhanced the work because the interaction of participants was not limited by time and proximity. Both the ICP and BOP share a common evaluation framework and project design. This consistency offered a unique opportunity to explore the impact of the utilization of advanced technologies in the delivery of a professional preparation program. Initial findings revealed that program participants in the BOP reported similar outcomes as those in the ICP. Regardless of the delivery system, aspiring school leaders in these programs were engaged and supported in the real work of school leadership focused on equitable outcomes.

Four technology-facilitated practices were integrated to bring about a transformation from ground to distance. The framework utilized in the program design was intended to engage program participants through technology-based teaching and learning. The instructional technologies critical to the success of the program (online communities of inquiry, online threaded discussions, reflection journals, and ePortfolios) will be presented in detail. Finally, we will discuss the analysis of the impact of the program and elucidate the implications of the findings for professional preparation programs with particular consideration for blended or online programs.

Discussion: Innovative Technologies

The following discussion describes the structural and innovative technologies utilized to transition the ICP from ground to distance.

Content

The theoretical framework and project criteria of the ICP became the content core of the BOP. The curriculum for the ICP was grounded in theories of action science, self organized

learning and learning organizations, systems, change and culture (Argyris & Schön, 1978; Deal & Peterson, 1999; Fullan, 2001; Harri-Augstein & Thomas, 1991; Senge, 1990; Wheatley, 2001). The prevailing belief was that all leadership work is rooted within an existing context and culture. The leadership preparation program began with an examination of organizational culture and values and personal values and skill. The five inquiry projects of the ICP were revised and organized into five quarters of work.

The ICP content was built from an apprenticeship perspective based on the leadership needs of the participants and their schools (Korach, 2005). The work of the five projects occurred within the real context of district schools and was based on ELLC and state principal standards. District policies and procedures were analyzed and applied as candidates learned research-based practices and theories of systems, culture, change and leadership. ELLC Standard I (Vision of Learning) and II (Integrity, Fairness, and Ethics in Learning) became the frame and fabric of all of the projects and ELCC Standards II (Culture of Teaching and Learning), III (Management of Learning), IV (Relationships with the Broader Community to Foster Learning) and VI (Political, Social, Economic, Legal, and Cultural Context of Learning) contained the black box of skills and knowledge for the five inquiry projects: Organizational Diagnosis, Family/Community Engagement and Inclusive Excellence, Student Supports and Services for 21st Century Learning, Evaluation and Instructional Leadership for 21st Century Teaching, and Leading and Resourcing Change.

Pedagogy

The pedagogy within the ICP was rooted in research-based principles of adult learning theory and constructivism where faculty provided more facilitation and inquiry than didactic instruction. Candidates customized their learning to their context and developmental needs; the

orientation was problem-centered rather than subject-centered; candidates processed experiences through interactions with others; and their work had a relationship with the demands of their professional roles, expectations and issues (Korach, 2008). The BOP utilized advanced technologies and the workshop days to actualize a similar pedagogy. The online communities of inquiry, online threaded discussions, reflection journals, and digital portfolios promoted a responsive and constructivist learning environment for participants in this principal preparation program as evidenced by the student learning outcomes and course evaluations.

Online communities of inquiry. The cohort design of the principal preparation programs was true for both the online and ground programs. Both the ICP and BOP consisted of a large group cohort of approximately 20 participants that was sub-divided into smaller cohorts of five to eight participants who were supervised by facilitators/cohort instructors who connected the inquiry projects back to course content to enrich the learning experience and created a transformative pedagogical process. The staffing structure of the BOP was stratified and purposeful: course professors were the thought leaders of the program that designed the learning experiences and participated with the online and in-person workshop days, cohort instructors served as coaches and mentors and assisted participants with the integration of the practice field and the coursework, and field mentors were the principals who coached and provided access and experiences for the participants to gain leadership skills as they contributed to the effectiveness of schools. The course professors and cohort instructors have access to all of the participants' online work. This model of team facilitation within the online program allowed explicit evidence for the impact of team facilitation and the co-construction of knowledge in what became online communities of inquiry for principal candidates.

The literature about the experience of adult distance learners in online cohorts is just emerging. Strohschen and Heaney (2000) examined the influence of team teaching from a critical pedagogy approach within the context of an online degree program. In their work, the emphasis has been focused on the strength of collaboration rather than the relative cohort experience, but provides certain implications for the need to understand the relationship of learning needs for both learners and instructors. In order to allow for students' reflection on their own thinking, the space of self to learning is examined in order to augment the ability to engage in the metacognitive processing of development and understand the implications for their work as leaders (Hartman, 2001). Thus, to deepen our understanding of technologies to advance learning, we incorporated analysis of the impact of the program through participant and faculty participant voices.

The findings of the end of course evaluations revealed that participants in both programs responded strongly to the following statement: *This course required me to think in new and different ways*. The use of team facilitation in the distance environment seemed to promote a co-construction of knowledge among participants and depth of thinking through technology-enabled discussions. The online environment facilitated meta-cognitive awareness and new thinking.

Online Threaded Discussions

The learning management system (Blackboard) was the vehicle for the content delivery of the program. Modular weekly units guided the participants through selected posted readings (and also assigned readings from textbooks), embedded video content, and relevant links for content delivery. The learning management system allowed for consistency in instructional design as well as linked connections between content materials and questions for discussion. The materials of the BOP were dynamic due to the capacity of participants and faculty to attach links

to the site. In addition, as the main delivery structure for participant work, digital portfolios become part of the content in which principal candidates were constructing knowledge and presenting their work to their colleagues for assessment, discussion, and deeper learning. Participants in the program worked through weekly modules of content constructed with multimedia resources and assigned readings. In addition, each participant was expected to respond to specific discussion thread prompts (usually in the form of a question) and post their reflection thread for feedback from their smaller cohort group within the course. In addition to posting a response to the instructor's prompt, participants were directed to respond to each other's prompts at designated intervals. Over the course of a week each participant would have posted about their own synthesis of the readings and responded to critical thinking questions and posted questions and thoughtful comments to at least three other cohort colleagues. The course professor and cohort instructors joined the discussion board threads to reinforce the key theoretical and conceptual underpinnings of that week's topics. The team facilitation approach allowed regular, personalized feedback to individual participants and served to support participants in their connections between theory and practice. The following student response to a prompt about leadership behaviors demonstrates the capacity of students to make theory and practice connections.

After reading this chapter, thinking about last quarter, and our new inquiry project, I think that I must work on my flexibility. I am not always comfortable with dissent. I know that I have a tendency to dig my heels in when I am in opposition to something. I really need to learn how to lead without dragging, and also be willing to change my own direction if it is needed. This was very much part of the adaptive leadership approach from last quarter. (R. Cunningham, personal communication, January 4, 2011)

Proponents of constructivist theory argue that online asynchronous discussions allow learners to engage in critical thinking through interactions amongst their cohort as well as the instructor. However, Murphy (2004) posits that engagement does not occur due to the medium of communication but from the interplay of three factors: (a) the intentionality of the instructional design informing the online discussion, (b) the norms, expectations, and standards set by the facilitator, and (c) the level and nature of the interactions among discussants in the forum.

Instructors served to socialize students to the process of forming good questions of inquiry in order to improve participants' critical thinking skills and model critical leadership skills for aspiring principals (Angelo, 1995; King, 1995). Arend (2009) argues, "the purpose of a discussion is critical thinking, the instructor's role is not so much to lead participants to a correct answer as to carry on a dialogue that helps develop deeper understanding" (p. 18). The findings of our analysis suggest that timeliness and quality of response is more important than frequency of feedback in the online environment.

The use of online threaded discussions were critical in advancing participant engagement in the course; end of course evaluations revealed that participants in the online program felt as equally positively engaged as those who met in the face-to-face innovative program. Moreover, the design of the prompts, structured posting requirements and responses, and the effective role played by the cohort instructors and course professor allowed for deeper understandings and critical thinking to emerge in a reflective, online space. A guide to the discussion groups can be found at <http://portfolio.du.edu/JRLE>.

Reflection Journals and Digital Portfolios

On one level, the use of reflection journals and digital portfolio technology enabled the faculty team to more easily evaluate individual success. Collectively, however, the reflection

journals and ePortfolios can be examined to assess the quality of the academic program. Participants were required to make at least five entries in the reflection journal during each quarter of the program. These journal entries were visible to only the participant, the course professor and the course instructor. The privacy of the reflection journals seemed to trigger self awareness and serve as documentation of participants' personal learning and leadership journey. The ePortfolio contained evidence about the participants' learning toward leadership standards and provided a more accountable and public learning space. Because the BOP required a great deal of participant self-reflection and cohort instructor feedback, the reflection journals and ePortfolios have the added value of serving as ongoing narrative data points to ascertain a multidimensional picture of the level and quality of participant learning.

The University Portfolio community brought together standard portfolio features for users to share content but also incorporated built-in assessment and rubric tools for evaluation of student work. Portfolio users were able to alter privacy settings to allow for restricted access, "university only" access, or open their portfolio for public viewing access. The online portfolio community integrated seamlessly with the online content management system utilized by the university. Participants, faculty, staff, alumni, and school mentors have equal access to the system. Any faculty, staff, or student can login with their centralized ID into the system. Community partners can request access and also take part in the ePortfolio community. The system allowed users to set access permissions to the objects they put into their ePortfolios. The issues of private and public communication provided valuable learning and practice regarding the preparation for communicating within and outside of their school communities.

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Organizational Diagnosis | Student Services Intervention Planning | **Evaluation and Instructional Leadership**

JANE Q. STUDENT

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- [Post Conference Observation Notes](#)

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Internship

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Additional Resources

- [4170 Teacher Evaluation Policy & Forms](#)
- [Empower the Next Generation](#)
- [Training Tomorrows Workforce](#)

Figure 1. Screen shot of student ePortfolio

An essential quality of the University portfolio system is the ease of use by users of all technical skill and the ability to alter privacy settings as well as bring in outside community members to the online environment. In addition, the ePortfolio space remains available to participants after graduation allowing them to transition the site to a professional online portfolio

and remain in touch with each other as communities of practice. The link to the blended online portfolio site is <http://portfolio.du.edu/elss> , and a sample of how a participant presented part of the learning from an inquiry project can be found at <http://portfolio.du.edu/JRLE>.

Assessment

The utilization of technology promoted the systemization and documentation of some of the informal and observational practices of the ICP and resulted in explicit structures for assessment. Within the online modules, assignments were developed with clear assessment rubrics by the course professor and these rubrics were used for grading by the course professor and the cohort instructors. Field experiences and formal internships were monitored by both the cohort instructor and the participant's personal field mentor. Each of these instructional personnel provided quarterly detailed feedback to the participant, and this became part of the program's record of participant progress and quality of work as well. A module feedback tool for the organizational diagnosis is provided at <http://portfolio.du.edu/JRLE>. Finally, participants publically display their portfolio / work samples, which provided evidence of their growth and mastery of key skills and knowledge in the areas of the leadership standards. Students used various technologies in addition to their portfolio sites to present their work. For example, students had the option of building websites to present their projects; a sample project can be found at: <http://inquiryprojectjrle.weebly.com/>. The technology allowed public accountability of the work of program participants. This public accountability increased the rigor and quality of the work and more effectively simulated the political realities of being a school leader.

The online program took our program evaluation data a step further by enabling more frequent data collection and, we believe, the practices of online communications offer the potential for continued connections with participants after graduation. Figure 2 illustrates the

major components of the multi-dimensional assessment plan and the continuous growth nature of participant and program evaluation.

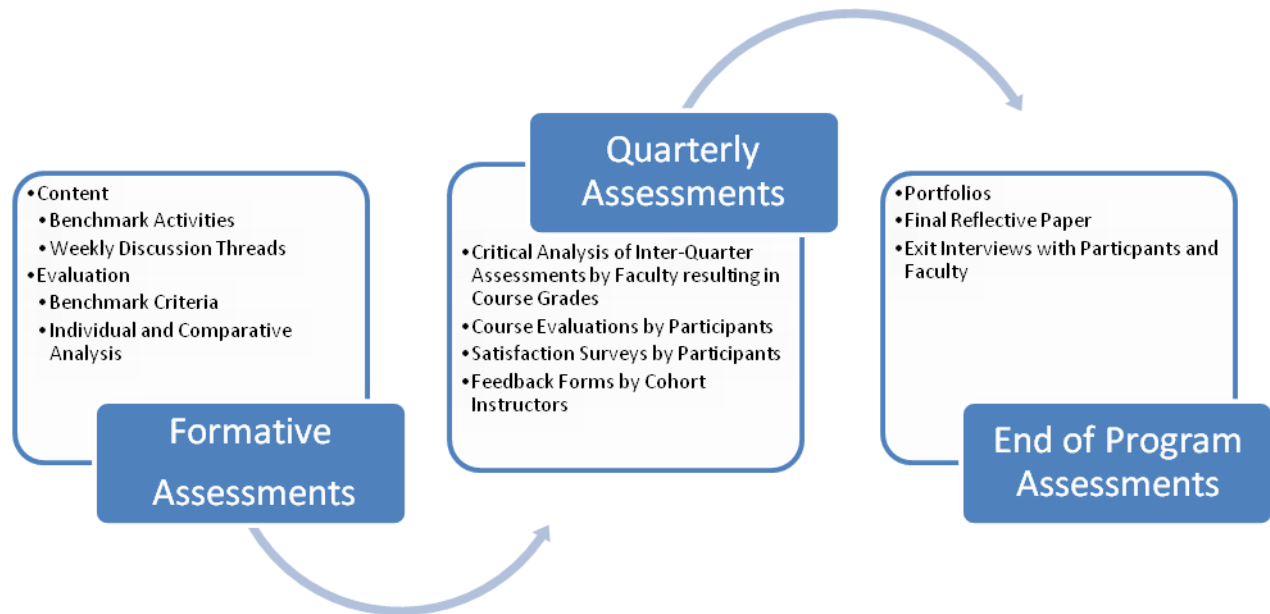


Figure 2. Assessment activities.

Data were reviewed quarterly where possible by program leadership to identify and redirect participants who needed assistance with successfully completing the projects and field work and encourage participants who were not fully participating in the online environment. The full array of assessment and program evaluation/participant satisfaction data were collected and analyzed annually at the end of each cohort's program and reviewed by the full group of instructional personnel in order to identify and implement changes and updates in content, instructional processes, assessments, and program support services that were needed to improve

the program for the next cohort. Similar data were collected for the on-campus programs to allow comparative analysis that will ensure similar quality across all of our delivery models.

Program Integrity

The voices of BOP program participants, cohort instructors, and course professors have been gathered as the program has developed. The implications of end of course program evaluations suggest that the core program values were maintained in the transformation of the program from ground to distance. The richness of the program impact are discussed and presented through participants' voices via qualitative inquiry. The following themes emerged through a comparison of these qualitative data: acquisition of a leadership lens and persona, comfort with ambiguity, reflective and critical thinking, and knowledge of systems and the capacity to analyze data and to execute an organizational diagnosis.

Leadership Lens and Persona

Participants in BOP stated that their principal preparation program changed their *way of thinking*. The work of the projects required participants to examine their school through a leadership lens. One BOP participant commented on this in one of her journal entries:

In moving out of my comfort zone from thinking like a teacher to thinking like a principal, I engage as many stakeholders as possible through projects, conversations, team meetings, formal/informal collaboration and by encouraging them to share their ideas with me. I have communicated my goals to those colleagues that carry strengths in the areas that I need growth in. Engagement of others is pertinent to being a strong leader. (M. Smith, personal communication, November 9, 2010)

Participant data and experiences were brought to the cohort faculty and participants for collective review and feedback. This dynamic process of analysis and reflection through multiple perspectives forces program participants to think like leaders. It also created a strong community of learners where participants felt safe to express issues without judgment. During a BOP workshop day a participant stated, “I can’t look at my colleagues at school in the same way because I have an understanding of the greater system” (J. Parks, personal communication, September 25, 2010). Another BOP participant demonstrated that she was deliberately making preparation for the principalship from the results of the project work, “Once I am in a principal position, I will evaluate the data collection system in place and decide if it has the capability to disaggregate the data in a multiple of ways so we can look at it by students and teachers more easily than we can now” (M. Smith, personal communication, October 10, 2010).

Comfort With Ambiguity

The BOP began with the most challenging project, Organizational Diagnosis, that required participants to acquire a critical and analytical perspective on the work of their school. There are no answers to this work, and the data they gathered only generated questions and uncovered multiple systems with many dimensions. This project simulates the work of principals as they enter new environments and immerses participants into the ambiguity of leadership. A BOP participant reflected on the experience of beginning the program:

After day one of the workshop, I felt empowered, yet intimidated. I feel that I am the youngest and least experienced in the program...Do I have what it takes?

During the discussions in the workshop, I realized I wasn't making the same connections between readings, even though I had read and thought about them thoroughly. My conclusion to all of this....I will listen and learn from others

experience. I may not have as much experience, but I have a different type of experience and contribution. (M. Smith, personal communication, March 23, 2011)

Participants in the BOP shared an increase in their level of comfort with ambiguity as the program progressed:

I have finally come to a place where knowing here is where you are, and here is where you need to be - now you have to figure it out. One cohort instructor said sitting with disequilibrium is something that you always have to sit with so get comfortable with it. (M. Smith, personal communication, March 28, 2011)

Reflective and Critical Thinking

Program participants become conscious of their assumptions and the impact assumptions have on their actions through examples and the analysis of their language. The program was rooted in the organizational theories of Chris Argyris and Donald Schön (1978) and used the “ladder of inference” (Argyris, 1990; Senge, 1990) as an analytical lens. BOP program participants reported that they almost unconsciously identify assumptions that they and others make. Several participants also stated that the requirement to bring their reflections and issues to their learning community through their weekly discussion threads and journal entries made the spiral process of self assessment and reflection a personal habit. The online community of inquiry provided a vehicle for reflective and critical thinking that was accessible by all participants at all times.

Knowledge of Systems and the Capacity to Analyze Data and Diagnose Organizations

The Organizational Diagnosis project with its emphasis on quantitative and qualitative data analysis was identified as having the most influential tools that graduates have effectively

transferred to their work environments. BOP participants talked about the ongoing nature of this project and the power of continuously conducting cultural and language analyses in school settings to assess the impact of interventions and change. Participants reported that they felt confident about their ability to gather and analyze data and rise to the “helicopter” or “balcony” (Heifetz & Linsky, 2002) perspective to examine the implications and impact that the data has on the organizational goals. Since the application of the work of the program was directly connected to the participants’ field of practice, the program shifted responsibility from the faculty to the participant. The participants authentically directed their own learning.

During my undergraduate work, I would go to class...here is the information, here is style, this is how many words you need, this is what needs to be done. I was always caught up in the expectations of what the professor thought it was supposed to be. This program is so different. Now it is...here is this information, you figure out what you want to do with it. That has been huge. I find that I am learning a lot more than I have ever imagined. (M. Smith, personal communication, March 23, 2011)

The results of the analysis of the qualitative data revealed that the online features did not diminish the experiences of participants as they navigated their way through the inquiry projects and created a learning community within their cohorts. In fact, the perspectives of faculty involved in both the innovative classroom-based and blended online programs revealed that the online features might promote deeper learning than the ground version of the program.

Value of Online Program Components

One course professor of the BOP concurrently taught in the ICP. This dual role allowed her to continually reflect and compare the experiences and outcomes of both delivery models. A

strong emphasis of the program is creating an awareness of systems and how the thinking and actions of individuals impact organizational work. The experiences of this course professor have identified the alignment between program goals and the impact of the online program components of the BOP:

The online discussions require a practice of self-discipline, the development of organizational skills, reflection and writing (which, I think, is thinking made visible). This rich combination deepens the participants' thinking, serves as a model for how to language about the work, and is a show case on how to dialog about complex and controversial ideas in a way that allows for others to join the dialog. The online discussion and journaling forces the student to develop and consistent practice of pre-thinking (reflection) and adopt a formal, more precise and hence, clear communication style. The tone and the message, thus, both seem more respectful, more thoughtful, more grounded in theory. (L. Brookhart, personal communication, April 3, 2011)

BOP participants have also been asked to articulate the differences between their experience in this online learning environment and their experiences in traditional classroom-based university courses. One participant talked about the requirement to post on the online discussion board:

Having to comply pushes that learning, a lot of learning comes from it. I am starting to feel a little more into it. When I post, I'm actually wanting to have a discussion, versus here is this essay I wrote about this question. It is now more I want to know more about this... I used to prepare it and then post, now I'm doing more quick responses like a discussion...I'm trusting myself and risking responses from colleagues (S. Bolton, Personal Communication, March 28, 2011)

Another participant articulated that he would like there to be more autonomy for the postings: “We do not need to have as much prompting as we did in the beginning” (M. Bates, personal communication, March 25, 2011). These statements of change and growth indicate that the online program features might be developmental and need to shift as the online community matures and the participants embrace their role in knowledge creation and become more accountable learners.

One important aspect of training principals is helping them develop professional networks to help them mitigate the isolation of school-based leadership. Concern was expressed at the outset of the BOP that a learning community would not develop with only two classroom-based days per quarter. Participants and faculty clearly articulated the development of an online community of inquiry. The following is a sampling of some of their responses:

I feel a connection with my cohort. We talk on phone, email, and meet on weekends. I talk to one or two other people. I talk to one person in particular, but if I had a freak out moment...I wouldn't hesitate calling them. We check each others' projects....kind of like a principal you are kind of out there on your own, but you need to know your resources. I know that they will continue to be a support for me. (J. Parks, personal communication, March 23, 2011)

These students, who did bond during the in-person days (you do need those two days at the start!) have created online “support groups” for one and with one another. My goodness, this heightened ability alone has been a tremendous benefit for the students. Students who can use the ePortfolio in an increasingly meaningful and creative manner thus ensuring they can deliver critical and

complex information to diverse groups just as a principal is required to do. (L. Brookhart, personal communication, April 3, 2011)

In fact, there was evidence that an online learning community may be more equitable and supportive than classroom-based programs. By the end of two quarters of work, one course professor described a phenomenon of the online learning community that she termed “learned distance”:

The students stay on topic more and more deeply engaged in the topics... The students seem close to one another; they have built relationships around the work, first, and personality, second. This seems to foster a focus I have not seen in in-person courses. These students are much better thinkers. They are students who advocate for themselves much more than classroom only students. (L. Brookhart, personal communication, April 3, 2011)

Coupling the innovative principal preparation program content and projects with online instructional tools allowed for a transformative learning environment that revealed the strength of the integrity and design of the ICP. The power of the meta-cognitive process combined with asynchronous learning within communities of inquiry (Garrison, 2003) can be seen in the voice of participants reflecting on their first quarter of learning. This sentiment is captured in the following discussion board post by a principal candidate:

What is important is to explain my process of analysis, how I moved continuously and cyclically through the different data snapshots, into comparison, into inference, moving from big picture and complicated overlap, to disaggregating data to quiet some noise and draw out correlations, to reconnecting relational issues to understand real-life implications. This is messy, but this is my process...

Paradoxically, this ability to move through the process has only come from my willingness to let go of my certainty. I have begun to recognize and appreciate that this mirrors so well the life of a principal. I am forced to choose priorities, make decisions, draw inferences and conclusions, and offer my diagnosis all in the face of uncertainty. (A. Josephine, personal communication, November 1, 2010)

The data are compelling in how we can think differently about the role of technology in facilitating transformative online learning opportunities (for both participants and faculty). It would also suggest that much relies on the design and intention of transferability of pedagogical techniques for very specific learning goals and processes in the preparation of principals.

Implications for Best Practice

The design of the BOP is informed by an adult learning framework, which postulates three key pedagogical elements that should be incorporated in 21st Century classrooms: collaboration (i.e., groups or teams); problem or project-based; practical or real-life (authentic) focused. This framework is also referred to as “relate – create – donate” (Kearsely & Shneiderman, 1998). The implementation of communities of inquiry, online threaded discussions, and digital portfolios follow this theory of “relate – create – donate.”

In addition to the need to orient participants to the distance learning environment, it was also essential to prepare faculty and the instructional team for the ICP to BOP transition. In reflecting on that process, there are implications not only for the incorporation of powerful distance learning strategies, but also challenges faced in program implementation. Challenges faced by program faculty were not unique to the BOP principal preparation program but do offer

insight into considerations for preparing faculty to implement programs. For example, a course professor shared,

The overall challenge is that the learning has no boundaries. It has not been viable to say, “I will only read discussions or journals or email on Tuesday and Saturday.” The just-in-time learning seems to me to be of critical importance. Students do not seem to go back to check for comments. Yet, if they receive them immediately, they seem to internalize them immediately. (L. Brookhart, personal communication, April 3, 2011)

This suggests that not only does the “relate-create-donate” model for principal candidates apply, but also that there is a critical element of time that corresponds to creating a positive learning environment of engagement for students. The indirect implication for distance learning is that it is not enough to allow space for voice and applicability to larger concepts, but that timely feedback is critical to advancing meaning-making in the distance environment.

In addition to timeliness of feedback, the online instructor plays a critical role in the rhythm, momentum, and tone of the online discourse. When preparing faculty who have little or no experience in moderating the online environment, professional development and guidance are critical to ensuring a safe online environment as participants are also developing in their own socialization to the online course environment. Here, a course professor discusses “naming and reframing racist and classist comments made with no consciousness” as an important consideration:

The cohort instructors have needed support (modeling) for reframing these comments and to do so both online and to call, privately email students, and/or meet with students to teach cultural proficiency. This has worked well, but again,

vigilance was critical...careful reading and immediately contacting the cohort instructor to ask for interference was needed...This norm just cannot be neglected or the online community would be degraded nearly immediately. (L. Brookhart, personal communication, April 3, 2011)

This example of the intervention of the cohort instructor is an important reminder for the need to continuously construct norms in the online environment and to ensure support and clear understandings within the instructional teams. Again, this insertion or disruption of calling to question the cultural proficiency of the online discussion promotes the modeling of language that students can acquire and utilize as professionals.

Conclusion

The alignment of the survey and qualitative data of ICP and BOP participants is remarkable. The online environment seemed to create a space where a community of inquiry was formed and authentic leadership learning occurred. The online space offered a powerful catalyst for leadership learning. The online environment decreased the capacity for individual voices to have more power and influence over others. The online expectations for participation were explicit and equal for all participants. These conditions helped promote an equitable environment for learning.

The public display of work on the ePortfolio provided an accountable forum that simulated the political nature of leadership and fostered sensitivity and awareness of multiple perspectives. The documentation through online threaded discussions and reflection journals provided an effective means of promoting critical inquiry and assessing the progression of leadership learning. In short, the use of online technologies allowed for the enhanced explicitness of three essential elements of the innovative BOP: equity, assessment, and critical

inquiry. Online displays of dialogue, work, and reflective spaces allowed participants and instructors the space to critically reflect not only on the outcomes of participant work, but also on the processes themselves. This exposition allowed for a granular understanding of the critical nature of the participants' inquiry which in turn afforded a more nuanced and richer picture for faculty to assess participant learning outcomes.

The emerging nature of this work is fertile ground for continued research. What is effective faculty development for the promotion of constructivism through online technologies? What is best practice for feedback that will challenge thinking and connect with theory? The potential of online technologies to promote generative learning is evident, but continued investigation into the processes and structures is needed for replication and sustainability.

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