

The Third Year Outcomes of Participatory Action Research Facilitated Online

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Abstract

Can online professional development be used to ensure the right to an education for marginalized student populations in large developed countries? This study evaluates two years of a web based project in the United States that used participatory action research to aid principals, teachers, and community members addressing issues of homeless and highly mobile or transient students. This study analyzes data from 90 participants in 34 communities, representing eight states using primarily qualitative mixed methodology to determine:

- Whether and to what extent did the two online cohorts create a **national** community of practice (CoP) to advance the understanding of students experiencing homelessness and high mobility in the U.S.?
- Whether and to what extent did the professional development experience of the two online cohorts create a holding environment through which to study educational disadvantage?

Outcomes suggest that while web based professional development is challenging because of the difficulties inherent in keeping momentum over an entire school year, the financial efficiencies more than compensate for the challenges. Others wishing to employ similar techniques to those described in this study should: 1) design the web environment lean and to the point, b) provide facilitation for both the online component and the hands-on project work, preferably from multiple people, c) be prepared for a spring time slump in activity and plan accordingly.

Introduction

E-learning has helped to increase access to education because of its ability to provide content and community in a time and space independent format. Applying distance education to professional development for K-12 educators engages the right to education discussion with a fresh perspective and has produced fundamental changes to educational practice for those who participated in the two yearlong projects that are the focus of this study. The Web-Based Professional Development project (WBPD) focuses e-learning technologies on enhancing educational practices for students who live marginalized lives within developed countries.

Because it is a right for all students to receive equal educational opportunities, teachers require specific professional development and technical assistance to engage students experiencing homelessness and high mobility in an environment where learning can occur.

Traditionally the study and development of practices for the educationally disadvantaged are under funded in the United States. Implementation of an asynchronous, facilitated, web-based project reduces the cost of both travel and time away from the classroom by making professional development more readily available to school/community teams across the country when it is convenient for individual team members. This paper evaluates the mid course results of such a project, designed to improve educational practices for children and youth experiencing homelessness and high levels of student mobility. While it began in a localized, face-to-face format, WBPD changed the model to one where content and project facilitation was managed online using computer mediated communication (CMC) tools which allowed for participation across wider distances. In WBPD's second year we added an online facilitator role to the project model which sought to increase participation and to improve the quality of the projects that community teams develop together throughout the year.

Originating in 2003 from a face-to-face professional development experience in Colorado with 18 educators, the Web-Based Professional Development project (WBPD) evolved to a blended, but primarily online, activity that serves educators across the United States. This study analyzes data from 90 participants in 34 communities, representing eight states in the U.S. The original study on the face-to-face model concluded that a major strength of participatory action research as a methodology for professional development lies in the process, addressing seemingly impossible issues while creating a "holding environment" that allows participants to relax as they follow a course of action towards change (Heifetz, 2000; E. Alana James, 2005, 2006; E Alana James, 2007). Heifetz (2000) postulates that because adaptive problems such as those created by homelessness are complex, seemingly impossible or without solutions, people shy away from addressing them out of self protection. They dodge the issue in order to avoid discouragement. Leadership overcomes this hesitancy by building a process that grounds the work and creates small successes, the cumulative effects of which are solutions to components of the bigger issues. Participants in this study continue to use PAR as the holding environment through which they develop, implement, and measure the outcomes of local solutions while sharing their processes in web-based communities of practice.

WBPD participants employ participatory action research (PAR) that is facilitated in an online environment to study their local populations of students experiencing homelessness and high mobility. As an example, students served by WBPD practitioners typically attend two or more schools per academic year, making consistency in education difficult if not impossible. Teachers and administrators have to modify their educational practices in order to adapt to this revolving door of students coming into and leaving their classrooms and schools.

After the face-to-face model proved effective, the challenge then became to develop an online environment (and thus take advantage of the financial efficiencies it offered) while duplicating the successful attributes of the initial work. While we remained convinced we could guide PAR practice at a distance, we needed to assess how to use computer mediated communication tools to build a community of practice (CoP) that sustained the work, at least over the length of the

school year and hopefully beyond. Wenger and Snyder (2000) provided the theoretical variables through which we were able to assess our results. They state that three key benefits are evidenced in successful CoPs: the spread of knowledge, the development of skills, and the solution of problems.

The purpose of this longitudinal study is to determine whether and to what extent web-based strategies encourage the formation of a holding environment through which to study educational disadvantage while at the same time creating local and national CoPs that identify best practices and improve the educational experience for students and families experiencing homelessness and high mobility. Our discussion also extends to an overview of successful implementation strategies that employ CMC tools within the Moodle open source learning management system (journal, forum, and email) in nurturing online CoPs.

After a discussion of findings we proceed to next steps. Results from this project drive the conclusion that wide-based, networked projects such as this larger project can be successful in identifying and filling gaps in the literature on educational disadvantage; however, the project design and the use of CMC tools needs to be adjusted from the norm of a typical instructor led online course, and facilitation needs to take place on a number of levels.

Research Design:

This study employed a primarily qualitative, mixed methodology design with which to compare the involvement of PAR participants during the two web-based cohorts. The variables used in this study were derived from work centered on adaptive leadership (Heifetz, 2000) and communities of practice (Wenger, 2004; Wenger, McDermott, & Snyder, 2002; Wenger & Snyder, 2000). The study focused on the process and outcomes of PAR projects as educators became involved and engaged in issues of educating students experiencing homelessness. Data were first open and then selectively coded: looking for the relationships of the participants to the process, and for variables derived from the work of previous authors using Atlas/ti software. Outcomes were verified through triangulation and through final interviews with participants.

Evidence included: in-person interviews, email conversations, online forums, online journals, and involvement surveys. All participants received training and ongoing facilitation during the course of their projects. Studying an ongoing development process that began in 2003, this paper is a report of findings across the web-based cohorts, comparing involvement and engagement. Questions addressed include:

- Whether and to what extent did the two online cohorts create a **national** community of practice (CoP) to advance the understanding of students experiencing homelessness and high mobility in the U.S.?
- Whether and to what extent did the professional development experience of the two online cohorts create a holding environment through which to study educational disadvantage?

Strategies to enhance rigor included generating and assessing the potential of rival conclusions. Throughout that process, negative cases were documented. These correlated most often with participants who did not finish the project, or demonstrated a low level of engagement and will be discussed within the issue of attrition.

Findings: Developing Communities of Practice Online

The second web-based cohort was significantly stronger than the first in the apparent development of CoPs. Both WBPD cohorts demonstrated that CoPs developed easily in local environments where people representing different roles (administrators, teachers, and community members), could meet face-to-face as they learned to work together through the project.

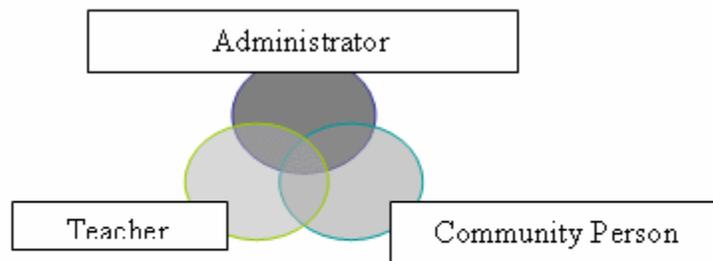
Overall our project is actually going very well. I have never appreciated more the value of teamwork than I am right now due to the overwhelming changes my district is currently undergoing.

Our vision is far beyond what we ever dreamed of.

During the 2005-2006 school year WBPD's work to improve educational practice for homeless and highly mobile students moved to a national focus under the sponsorship of the National Center for School Engagement. Financial and scheduling constraints prohibited continuation of a face-to-face model and led to the decision to move the project to a web-based delivery model. James, who had previously facilitated the face-to-face project, wrote the content and facilitated the process online for the first web-based cohort.

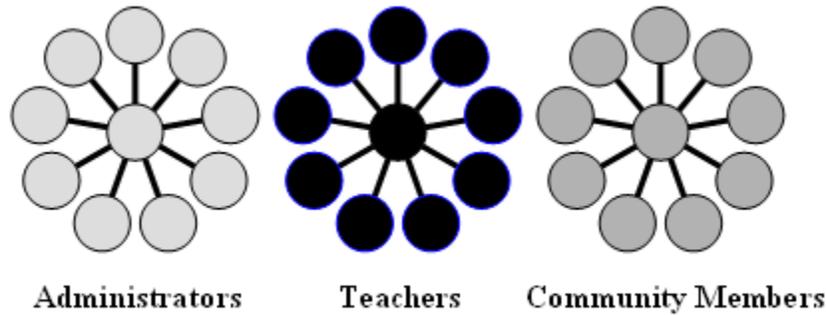
The first online cohort included 41 participants from four states. Participants engaged with the project at multiple levels. First, they were part of three person local project teams that included a school administrator, a teacher, and a community person who could get together face-to-face on a regular basis. To facilitate a national knowledge sharing community we also created online community forums that divided participants by role. The configuration of the group is represented below in two types of diagrams. Figure 1 shows interconnected circles that symbolize the local community team.

Figure 1: Community Team Configuration



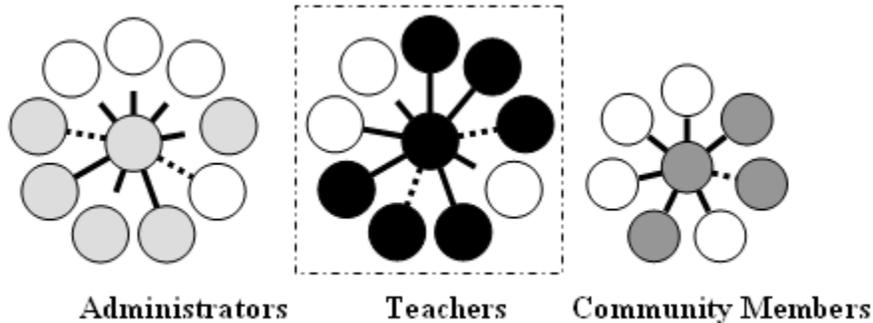
In Figure 2 below, the three diagrams of circles on spokes symbolize what we hoped would transform into role-based national communities of practice. In other words, we imagined robust, separate CoPs of administrators, teachers, and community members, through which educational practices for homeless and highly mobile students would develop.

Figure 2: Idealized Community of Practice



While the local teams (Figure 1) proved to be largely successful, the online communities of practice were less engaged with each other than hoped. Evidence for this lack of engagement is demonstrated by the fact that during the 2005-2006 school year there were 75 days that WPBD logs showed no activity. Figure 3: 2005-2006 CoP Engagement, demonstrates the actual level of engagement from our original idealized visions during the first year we employed elearning strategies.

Figure 3: Actual 2005-2006 CoP Engagement Model

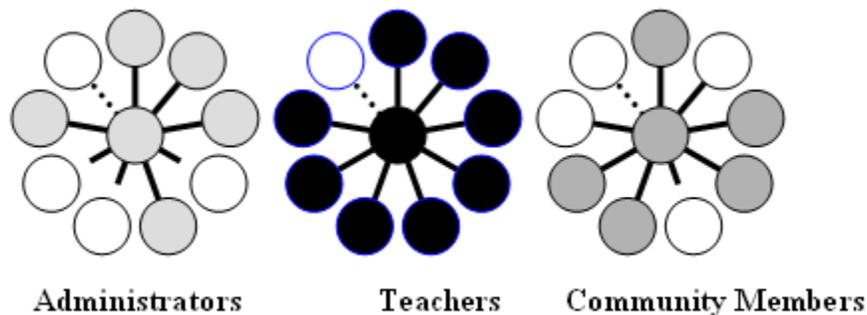


Beginning in Spring 2006, the WPBD project leadership team began a reflection on results of the first web-based cohort and came up with a series of adaptations for the 2nd Cohort designed to improve participation and engagement with the final projects. These changes resulted in a substantial revision of both content and facilitation methodology for Cohort 2. First, recognizing the time constraints faced by educators, we streamlined online content from approximately ten items per month to a four phased reading, reflection, task, and discussion format. Not only did this help to reduce anxiety for participants who were new to the online environment, but it also shifted some focus from absorbing new content to more reflection and action. We also created a participation rubric and tied participant stipends to a combination of online participation (30%)

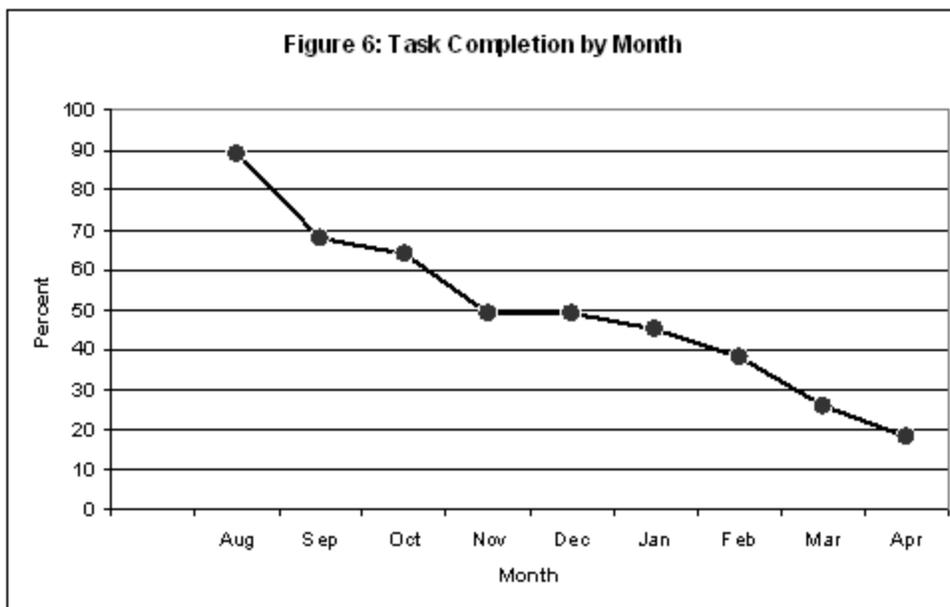
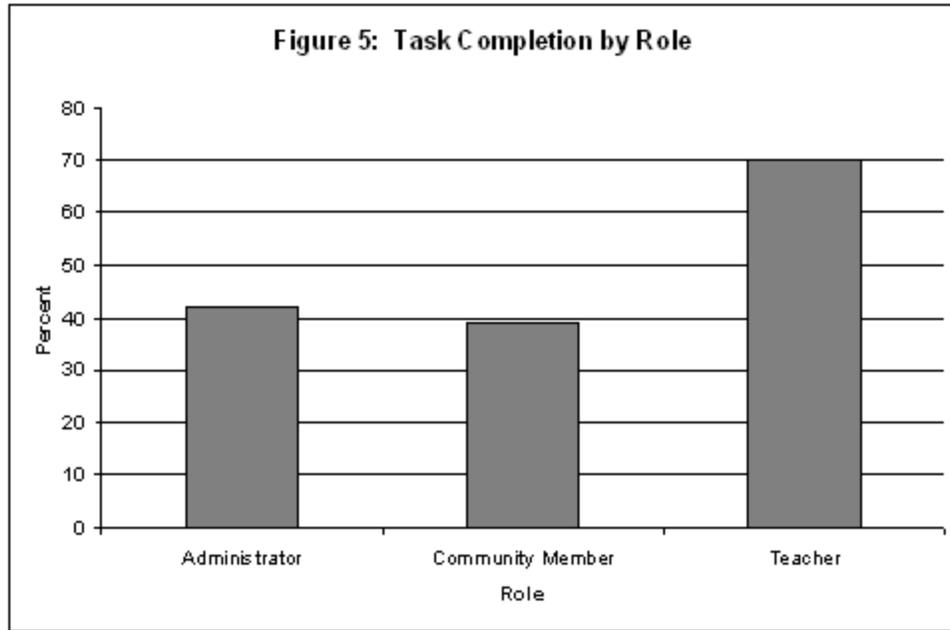
and submission of a final project report (70%). Third, we created an online facilitator role designed to support participants by sending monthly updates on project goals and tracking individual participation so it was clear how they were doing against required project submissions. Fourth, we added an online orientation module the month prior to our Face-to-Face kick-off weekend so participants could begin to familiarize themselves both with fellow participants and with the online environment. The final new component for Cohort 2 was the addition of a monthly journal discussion requirement. The goal of the journal was to generate project data and to share joys and concerns on an individual basis with the project director.

WBPD's 2006-2007 Cohort had 40 participants representing 11 sites in 5 states. Four of those formally withdrew for personal reasons while many others simply became "missing in action. As demonstrated in Figure 4: 2006-2007 CoP Engagement, shown below, the results showed that overall the local teams remained strong, and there was increased evidence of engagement in the national CoPs using CMC tools. As an example, up until the first of May, 2007, when data closed to ensure inclusion in this article, there were only three days where no online activity was logged. As demonstrated in the diagrams below, we had one team who opted out of online participation completely, although they worked on their project and will finish it during the next school year. Administrators were the most likely to become disengaged from the online portion but continued to support their teams locally. Several community people only participated in the online work at the beginning and it was not always clear whether and to what extent they participated locally.

Figure 4: 2006-2007 CoP Engagement



Participation in the online Community of Practice was recorded primarily as quantitative data. Each month included a journal requirement along with a discussion post and two substantive replies to peers within the role-based groups. Our analysis compared completion percentage by role and by month (See results in Figures 5 and 6 below). Data show that participation steadily declined throughout the school year.



Findings: Engagement of Participants

Participatory action research methodology has proven to be frustrating in the first months of each cohort's project. Evidence from the first, non web-based cohort showed that they centered their dissatisfaction on not having enough time, and having to come in on Saturdays to continue with the project. The web-based cohorts complained about adapting to the online environment along with time constraints and competing priorities. The second web-based cohort had fewer complaints about adapting to the e-learning medium (due largely we believe to direct facilitation) but were equally overwhelmed by time and responsibility issues.

Yes, I am finding it difficult to focus my priorities. My school is now on Title I Corrective Action because of AYP requirements, so that has dominated my thinking recently.

I am wondering if anyone is experiencing the same challenges our team is having...staying focused during this time of year. It seems we had a lot of difficulty getting together and making plans with all of the busyness of the holiday season.

The design for the second cohort sought to blend the best results by moving to a hybrid model that included both face-to-face time and monthly ongoing modules that were facilitated online. While still primarily web-based, 2006-2007 began with a two and a half day conference in Colorado. During this session, participants met each other, shared experiences across state lines within role level groupings, and began to brainstorm on their PAR project in community teams. The comments below are indicative of the positive attitudes about the project that resulted from this initial meeting. It is clear that the blended model gave them a boost. It is likely that this boost contributed to the improved overall engagement results.

I feel that our group project is well underway in regards to our thoughts in what we want to do. Any one of us can clearly articulate our purpose.

I have benefited from much of the information this weekend. The conversation with teammates when the issue was directly on our minds was very helpful. I truly enjoyed what we learned and the tasks we encountered.

This conference allowed me to concentrate my thinking on this project alone. The retreat away from home focused my thoughts to allow for better ideas. I think this component of the project is extremely important. It also gave me an opportunity to listen to groups that have participated in the past which was beneficial.

As we compare the second web-based cohort's qualitative results against Wenger and Snyder's (2000) suggestions that CoPs can be recognized through their ability to aid participants as they spread and increase knowledge, develop skills, and solve problems, we see positive evidence of these outcomes. Ninety instances were coded displaying increase or spread of knowledge. Forty seven of these were contained in online forum questions and answers between participants. Twenty two were coded as part of a greater story sharing their outreach techniques with others. Ten told of knowledge being spread as others in their local communities heard of their work and asked them to share it. The final 11 instances developed as a result of online tasks set for them by the project, personal comments, and because their local projects dictated that they should share knowledge of the issues they were uncovering to others.

It has become a broad discussion because we have the district person in our group, and she will be able to share the finished project systemically within the whole district.

We created a PowerPoint to share with our school staff and local churches and businesses. We entitled it, "The Faces of Homelessness. After that everyone needed tissue. It was so powerful. We were then able to get more support and resources to help our children.

In descending order, tallies of evidence also show:

1. Thirty seven forum discussion threads generated over three separate topics where almost the entire participant group came together to help participants with problems they faced. In the first, a principal and a teacher in one community threw a dinner for homeless or highly mobile families of students and no one came. A short while later the principal wrote: *"I also received some good suggestions from others in the project, so I'm hopeful we can make some changes and have a much more successful event next time."* In the second conversation participants discussed various funding streams that could provide transportation for homeless or mobile students to and from after school programs. Finally and throughout the year, participants discussed ways in which they could improve their projects.
2. Twenty two instances where participants shared resources with each other, including forms for data collection, formats for assignments, and ideas about how to measure anxiety levels in students experiencing homelessness.
3. Seventeen instances where WBPD participants worked together to improve the strategies they used in either collecting data or advancing practice for educationally disadvantaged students.
4. Twelve instances where online data showed examples of participants helping each other develop skills.

While these figures demonstrate that some type of positive interactions occurred which led to outcomes similar, if not identical to those Wenger and Snyder (2000) would suggest as relevant to CoPs, the question of voluntary participation surfaces as to whether WBPD's environment qualifies as a true Community of Practice. In the second WBPD cohort, project leaders chose to implement a participation rubric where a portion of the stipend received for project completion was tied to online participation. The goal was to provide additional external motivation for participants to make the effort to contribute to monthly discussions and knowledge sharing. WBPD differs from the Wenger and Snyder in which participants voluntarily choose to join CoPs because, while WBPD participants sign up for the process willingly, participating in the online CoP is heavily incented via the stipend (30% of \$1,000) and is both tracked and reported to individuals on a monthly basis.

Findings: Adaptive leadership through the development of a holding environment

The two web-based cohorts were comparable regarding involvement and engagement of the educators with issues of homelessness and mobility, although during the second year a couple of the sites experienced particularly good luck in obtaining resources that allowed for spectacular results, such as being able to provide a home for a homeless family. Qualitative coding showed 30 specific quotations about the importance of the project structure to creating their results, thus confirming the participatory action research methodology as efficacious for the study of

educational disadvantage and the online environment as successful in employing those methods. Two examples of stellar results in the attitudes of educators and community members regarding what they can do to impact disadvantage follow:

On a final note, Alana, I just want to tell you that although at times I have been totally overwhelmed with the amount I have had on my plate, being involved in this project has forever changed the way I teach.

This project has been a "coming of the minds" for our staff. They are eager to help and believe it or not, they are asking what else they can do. I'm so thankful.

Discussion and Analysis

Drawing once again on the theoretical base of Ron Heifetz (2000), this study concludes that a major strength of participatory action research in aiding educators to address the more difficult issues they face, those of educational disadvantage, is that the PAR process creates a "holding environment" (pg. 103). Heifetz suggests that difficult adaptive problems, such as when the ethical ideal is at odds with reality as is the case with the hope that all children do well in school, are hard to address due partially to the personal angst and discouragement brought up in the practitioners.

The definition was foggy for me, now I have a clear definition of homeless or highly mobile students. I have a better grip on the dynamics of what happens in their homes or living situations. It takes a long time to research and find out what is going on with these kids and families; they are hard to track down. AR doesn't always show what you want it to show, you want to show what you are doing in education works, but you can't put your finger on it. I thought it would be easy to show, but when I looked at the data there was not statistical significance. Small town principal

To motivate people to address these big societal issues, Heifetz suggests that leaders establish a holding environment, one that safely takes the process step by step. Participants need to know that they are guided by people they trust and that the outcome can be trusted as well. Then the participants will proceed with the work. For those in both cohorts, participatory action research created just such an environment. For those in the second web based cohort the online facilitators were also important.

Brian and Alana have been incredibly supportive...=-) The barriers didn't come from those that initiated the WBPD project! They were local, for me!

To build successful online communities of practice to support educational issues, this evaluation generated several lessons:

1. Results were mixed related to the organization of the content on the web during the first WBPD year. While one university professor who participated in the project, appreciated the richness, most practitioners complained of too much reading. The second year

participants still complained of too much to do, but less so and in a less directed manner than during the first online cohort. This leads us to conclude that while adults may need the discipline and support offered by the content, they may rebel if the usefulness is not immediately apparent.

2. The face-to-face cohort consistently pointed to the added value of their regular meetings in large groups outside of their local geographic area; however, the two online cohorts did not realize this potential. While the second online cohort obviously learned and gained new ideas from each other, one participant who participated in all three venues opined that online will never match the accountability inherent in needing to prepare for a live meeting. This leads us to conclude that a next step would include the use of synchronous tools, preferably those allowing both audio and video feeds.
3. Familiarity and camaraderie between sites was more evident in the second online cohort and was attributed by participants to getting to know each other during the face-to-face meeting in the fall. While synchronous tools may overcome some of the feeling of distance between participants, we are still working to find ways to develop interpersonal relationships and the spontaneity of face-to-face engagement in the online medium.

Going into the third year for the web based project, WBPD continues to require participation each month making the individuals accountable to the national group on the web. Participants will continue to be required to post monthly in the online forums and to maintain a monthly journal in order to receive the participation portion of their project stipend. The required tasks will form the basis of the forum discussions and in months where participation has lagged we will invite nationally known "guest speakers" to comment on systems and strategies to help the homeless and highly mobile student. Online facilitation of the discussion forums will continue although we may not divide the larger group into smaller CoPs but rather let these special interest groups develop naturally. As facilitators of the discussion and the research, our goal remains to increase the evidence derived from actions and leading to conclusions that support new educational practices for homeless and highly mobile students.

After two months of online orientation to both the subject of homeless education and to the project interactions on the web, the teams will again meet for a three day seminar. The agenda, which amounts to a basic research class, will allow for increased opportunities for team building, discussions among groups, and interactions across teams as PAR projects take shape.

Conclusion

Web-based projects are an attractive alternative for individuals and groups trying to improve situations for the educationally disadvantaged in geographically dispersed areas. While the findings from the first year showed room for improvement, it was equally clear that an online facilitated PAR process produced evidence of its ability to engage educators in issues of disadvantage. The primary goal for the third year should be to intensify the development of a national community of practice for educators studying practices for homeless and highly mobile students so best practices can be surfaced and promoted among education leaders.

The project team believes that the lessons from the first two years will translate to this goal being realized in the third year. Enhancements to the web-based process continue to significantly

improve the likelihood that learning communities will develop to sustain such practices. Outcomes suggest that while web based professional development is challenging because of the difficulties inherent in maintaining momentum over an entire school year, the financial efficiencies more than compensate for the challenges.

Educators seeking to replicate the techniques of this study should make sure to conduct a preliminary audience analysis to determine what will motivate participants to engage actively in the professional development activity. Content should be concise and easy to follow and a support network of facilitators, professional mentors, and technical support specialists must be readily available to participants. Finally, project leaders must have a set of ideas and strategies to continue to motivate educators throughout the duration of the project as there will undoubtedly be iterations of activity and inactivity over time. All in all, e-learning has been an outstanding medium to engage educators in a cost-effective, professional development program that sustains educators over time as they build solutions to complex problems.

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