Efforts to Transform Learning and Learners
The First Decade of an Innovative Doctoral Program

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This study sought to determine graduates' perceptions of the extent to which an innovative Ph.D. in educational leadership facilitated their transformative learning and their capacity to foster others' transformative learning. The doctoral program was designed to prepare students majoring in either PK-12 school improvement or adult, professional, and community education to assume leadership roles in a variety of settings cutting across the field of education. The Ph.D. program seeks to foster transformative learning through critical reflection, discourse, and praxis within a community of learners.

Theoretical Framework

Transformative learning is a critical aspect of the doctoral program and the focus of this study. Other perspectives enfolded within the program and contextual to this study include community of learners, critical reflection, and praxis.

Jack Mezirow (1978, 1981, 2000) is credited with introducing the theory of transformative learning to the field of adult education in the

late 1970s (Taylor, 2008). Although higher education and adult education are not synonymous, students in doctoral programs are adult learners, and the principles of adult education in general and transformative learning theory in particular have substantial applicability to doctoral study in educational leadership. According to Mezirow (2000),

> Transformative learning refers to the process by which we transform our taken-for-granted frames of reference (meaning perspectives, habits of mind, mind-sets) to make them more inclusive, discriminating, open, emotionally capable of change, and reflective so that they may generate beliefs and opinions that will prove more true or justified to guide action. Transformative learning involves participation in constructive discourse to use the experience of others to assess reasons justifying these assumptions, and making an action decision based on the resulting insight. (p. 7-8)

Drawing on Habermas's (1984) identification of learning domains, Mezirow (2000) maintains that transformation occurs in the instrumental domain when adult learners become critically reflective about the content or processes of problem solving, while transformation occurs in the communicative domain by becoming critically reflective of the premises underlying their definitions of problems. Whereas Mezirow's early work emphasized the role of a *disorienting dilemma* as a catalyst for what he more recently labels "epochal" transformations, prompted by theorizing by others and a growing body of research on transformative learning, he later acknowledged that transformations in habits of mind may be incremental in nature, involving a series of transformations in related points of view.

Mezirow also offers some ideas about the conditions for transformative learning and the kind of educational environment that fosters it. He speaks specifically about the role of discourse as a

> …specialized use of dialogue devoted to searching for a common understanding and assessment of the justification of an interpretation or belief…Reflective discourse involves a crucial assessment of assumptions. It leads toward a clearer understanding by tapping collective experience to arrive at a tentative best judgment. (p. 10-11)

Acknowledging that our culture conspires against collaborative thinking by conditioning us to think adversarially, and pointing to Deborah Tannen's (1998) notion of an argument culture, Mezirow (2000) adds that "Discourse is not based on winning arguments; it centrally involves finding agreement, welcoming difference, 'trying on' other points of view, identifying the common in the contradictory, tolerating the anxiety implicit in the paradox, searching for synthesis, and reframing" (p. 13).

Viewing the broad purpose of adult education as helping students realize their potential to become more liberated, socially responsible, and autonomous through critical reflection, Mezirow maintains that adult educators should seek to create opportunities for adults to do so. Students in this study were introduced to Mezirow's model of transformative learning as a part of a core course on adult learning. Beyond this didactic introduction to transformative learning, the program sought to create an environment that fostered transformative learning through learning experiences embedded in numerous courses within the curriculum.

Transformative Learning Within a Community of Learners

Transformative learning is not possible in isolation. The communal aspect of transformative learning is called different things by different authors. In adult education it is typically called a community of practice (Wenger, 1998). In K-12 education it is sometimes referred to as a collaborative culture (Hargreaves, 1992), a collegial culture (Glickman, Gordon, Ross-Gordon, 2014), or a professional community (Arbuckle, 2000). There are a number of characteristics associated with such a community, including trust and support building, democratic decision making, critical reflection, experimentation and risk taking, inquiry, collaborative work, and ongoing dialogue. By modeling and fostering these characteristics, the educational leader creates an environment that facilitates transformative learning. The Ph.D. program described below attempts to prepare educational leaders to foster communities of learners by *being* a community of learners—by incorporating the aforementioned characteristics of communities of learning throughout the program.

Critical Reflection

Critical reflection is central to Mezirow's theory of transformative learning. He defines critical reflection as a critical analysis of assumptions which our beliefs rest on. He suggests that through this process of challenging our established practices and expected habits we can change our mind-sets with which we have made meaning of our experiences with the world, each other, and ourselves (Mezirow, 2000).

The concept of reflection has a scholarly genealogy that pre-dates Mezirow and continues to be extended. Dewey (1910/1997) described reflection as "assessing the grounds of one's beliefs" (p. 9). Drawing from Dewey's definition of reflection, Schön (1983, 1987) brought attention to reflective practice—intentionally considering one's own experiences

in applying knowledge to practice. Critical reflection is based on the underlying assumptions of critical social science (Fay, 1987; Geuss, 1981; Habermas, 1984). Fisher (2003, p. 314) states, "The ontology of critical social science suggests that human beings, through critical-self reflection, can come to see the true nature of their existence and act to change their situation, based on this understanding."

Barnett's (1997) research examines the concept of "criticality" within higher education and defines it as a "Human disposition of engagement where it is recognized that the object of attention could be other than it is" (p. 8). The three domains of criticality are knowledge, the self, and the world, which correspond respectively with the skills of critical thinking, critical self-reflection, and critical action. When the domains and skills are harmonized, a *critical being* is produced.

Cranton and King (2003) examine transformational learning and professional development of educators and offer suggestions for critical reflection. The authors explain three ways in which we interpret experience—through content reflection, process reflection, and premise reflection. With regard to doctoral students, content reflection is evident when students examine the description of a problem or the nature of the interactions among the participants. This is the part of the critical reflection process when students ask themselves, "What role did I play in what just happened?" Process reflection involves examining the problem-solving strategies used and looking for ways in which students' thinking and strategies may have been incorrect or possibly done differently. Premise reflection is when the problem itself is questioned or doctoral students ask themselves, "Why do I feel responsible for this situation?" and has the potential to lead to the transformation of meaning perspectives. Students in doctoral programs may go through this process via course assignments, engaging in dialogue with peers during class, journal writing, and so forth (Ballantyne & Packer, 1995). Numerous in-class activities and written assignments over the course of the program were designed to stimulate the critical reflection that is crucial to transformative learning and to foster a reflexive stance.

Praxis

Freire (1970) maintains that

> . . . human activity consists of action and reflection: it is praxis; it is transformation of the world. And as praxis, it requires theory to illuminate it. Human activity is theory and practice; it is reflection and action. (p. 125)

This perspective is further explained by Breunig (2005), who states,

> praxis, therefore, starts with an abstract idea (theory) or an experience, and incorporates reflection upon that idea or experience and then translates it into purposeful action. Praxis is reflective, active, creative, contextual, purposeful, and socially constructed. (p. 111)

Aronowitz (1993) relates Freiere's notion of praxis to progressive education:

> Freire emphasizes 'reflection,' in which the student assimilates knowledge in accordance with his/her own needs, rather than rote learning and is dedicated, like some elements of the progressive tradition, to helping a learner become a subject of his/her own education rather than an object of the system's educational agenda. (p. 9)

Freire (1970) points out, "critical reflection is also action" (p. 128). Students of educational leadership who are engaged in praxis as part of their doctoral studies have already begun the process of becoming transformative change agents.

The Doctoral Program

The Ph.D. program follows a cohort model, with a new cohort of students from both majors beginning each fall. The program begins with core courses completed by students from both majors. The core consists of courses on educational philosophy, leadership and organizational change, models of inquiry, understanding epistemologies, adult learning and development, and community development. After completing the core, students focus on coursework either in adult, professional and community education or school improvement. The former includes courses in historical foundations and current issues in adult education, program planning, teaching adults, and human resources and professional development. The school improvement major includes courses on foundations of school improvement, facilitating school improvement, curriculum and instructional leadership, and models of educational assessment. Students from the two majors take a series of quantitative and qualitative courses together, and elective courses often include students from both majors.

The doctoral program faculty believes that transformative learners who become educational leaders foster cultures of transformative learning within the educational communities they lead. These cultures are built through and promote collegiality, collaboration, trust, support, democracy, critical reflection, vision building, experimentation, risk taking, and inquiry. Rather than merely teaching about cultures that

promote transformative learning, the faculty attempts to mirror the characteristics of such cultures in the doctoral program itself. The faculty seeks to integrate these characteristics in faculty-student relationships, classroom instruction, field experiences, and assessment strategies.

The doctoral program provides a variety of specific learning experiences to facilitate transformative learning. There is a heavy emphasis on collaborative learning in classes and collaborative projects for field-based assignments. The doctoral students are asked to reflect critically on their own personal and professional lives and educational beliefs through writing autoethnographies, personal educational philosophies, and so on. Students are asked to examine and engage in reflective dialogue on alternative educational paradigms, critical educational problems, and controversial issues. Individual students develop reflective portfolios that include learning artifacts and reflections on learning.

There is an emphasis throughout the program on multicultural and global education. Students engage in activities designed to help them better understand their own cultures and other cultures, and to become culturally responsive leaders who promote equity and social justice. Doctoral students work on community development projects in local communities as part of their coursework, and some students travel with their professors to other countries to complete electives focused on learning about other cultures or community development.

From early in the program, doctoral students work with professors and colleagues on various research projects as part of required course work or for elective course credit. One elective course, "collaborative inquiry," involves a team of students in a research project with a professor over an entire year. Teams of doctoral students frequently co-present collaborative research papers with professors at national and international conferences. Dissertations often focus on the doctoral students' field-based efforts to facilitate transformative learning in educational settings.

Research Questions

This study sought to determine whether the Ph.D. program has been successful in its efforts to develop leaders who practiced and fostered transformative learning. The study's two primary research questions follow:

1. How, if at all, do graduates perceive experiences in the doctoral program as responsible for their transformative learning as doctoral students and as educational leaders after completing the program?

2. How, if at all, do graduates perceive their transformative learning in the doctoral program as enabling them to foster transformative learning within other educational communities?

Research Design

This study was informed by a constructionist epistemology and based on an interpretivist perspective. We used in-depth, open-ended interviews with program graduates as our data collection strategy. Thirteen program graduates volunteered to participate in the interviews. Graduates who we interviewed entered the program between 2001 and 2008 and graduated between 2005 and 2011. Nine interviewees were female and four were male. Eight of those interviewed were white, two were African-American, and three were of Latino origin.

Patton's (2002) interview guide approach was used. Each interview included discussions of (a) whether the participant had experienced transformative learning in the doctoral program, and, if so, the nature of that transformative learning; (b) whether critical reflection played a role in any transformative learning they experienced, and, if so, what prompted that critical reflection; (c) whether praxis had been associated with any transformational learning reported, and, if so, the nature of that praxis; (d) whether, as a result of the doctoral program, the participant continued to experience transformative learning after graduating, and, if so, the nature of that transformative learning and how it related to the doctoral program; and (e) whether, as a result of the doctoral program, the participant had facilitated transformative learning within an educational community, and, if so, the nature of that transformative learning.

We used a modified version of Marshall and Rossman's (2011) broad framework for data analysis, with Strauss and Corbin's (1998) coding procedures embedded within that framework. The phases of data analysis included (a) organizing the data, (b) immersion in the data, (c) coding the data, (d) writing analytic memos (e) displaying data summaries on matrices, (f) generating categories and themes, and (g) making interpretations. The stages of coding included open and axial coding. Open coding was initially used to label meaning units within the interviews using descriptive words and phrases. Next, axial coding was used to develop categories and themes.

Results

We present the results of the study under headings corresponding to the two research questions. First, we describe participants' percep-

tions of transformative learning fostered by the doctoral program. Next, we share participants' views on how they have fostered transformative learning within other educational communities.

Participants' Transformative Learning

All but one of the participants reported that they engaged in critical reflection throughout their doctoral studies, and that critical reflection was a catalyst for their transformative learning. As one participant put it, "The whole program…was a period of reflection that allowed me to be in this reflective mode." Another stated,

> As far as my ability to critically reflect on my beliefs, I think that's all we did. That was the whole point of the program, to be more reflective in what we did.

When asked what learning activities caused them to be more critically reflective, participants cited a variety of things—exposure to new theory and research, reflective writing, a reflective portfolio developed throughout their core and concentration courses, assignments that asked them to apply theory to practice, and so on—but the most consistent response was that it was relationships and conversations with other students and professors that enabled critical reflection. Their doctoral cohort gave graduates the safe haven and support needed to engage in critical reflection. Also, participants described the diversity of the cohort—diversity in major, career, age, race, ethnicity, marital status, life experiences, beliefs, and so forth—as contributing to the dialogue that raised their level of critical thinking. The following series of quotes from different participants illustrates this perception:

> We had in our cohort somebody in the medical field teaching adults. We had several school administrators. We had someone in the prison education system. All of us together. I would not have had the level of conversation I [experienced] had it not been for the program. And for us to share these different perspectives by examining the same research together really heightened our perspectives.

> I learned so much from my cohort members: Hispanic women, African-American men, White guys like me.

> It's these relationships and these interactions that I would not have had had it not been for the program, which are really what impacted me the most. It was the different perspectives. We were all coming from different places in our lives, and we were all different ages. We were married, we were divorced, we had kids, we didn't have kids. We were such a unique group of people, who were all somehow at the same point in their lives.

Participants reported that relationships, diversity, and dialogue, taken together, sparked their critical reflection about educational issues as well as examination of their own beliefs, values, and behaviors.

Participants described various types of learning during the program that resulted from critical reflection, including the following:

- Better understanding of self
- More awareness of multiple perspectives
- Improved ability to "think outside of the box"
- Increased agency
- Willingness to question assumptions
- Appreciation for dialogue

Participants shared that they continued to engage in critical reflection after graduating and that their continued efforts to be critically reflective improved their professional lives in a number of ways, including:

- Being a better listener
- Gathering and synthesizing more information to make better decisions
- Reflecting on past experience to learn how to improve the future
- Being more open-minded
- Being less judgmental
- Engaging more often in dialogue with others

Participants' perceptions of the impact of critical thinking were reflected in one graduate's statement: "That really impacted a lot of what I believe, the choices I'm making, and the way I approach things."

To foster transformative learning, the doctoral program attempts to integrate praxis into both its learning and assessment activities by asking students to reflect on theory, apply theory to practice in educational settings, and then reflect on their efforts to apply theory. Most of the participants were able to discuss praxis they had experienced and believed it had enabled transformative learning. One participant noted,

> Most assignments that I completed in the program, I was able to use a real situation [in my] workplace and apply what I was learning to my work environment.

Another described the comprehensive exam she took as a requirement for candidacy:

> You weren't just taking exams. It was clear that I was in a different type of program. It wasn't just the research and the papers; it revolved around a problem I had been experiencing in my work as a practitioner.

All of the participants except one described transformative learning they saw as connected to their doctoral studies. In addition to discussing critical thinking and praxis as catalysts for transformative learning,

participants who reported transformative learning also described specific triggers for that learning. Some of the triggers were single events: a video, a class discussion, a field-based activity, a research paper, and so on. Other triggers were series of events, such as readings and reflections on a topic over a period of time, or ongoing conversations on a particular issue.

One participant discussed how a field activity designed by a professor triggered transformative learning:

> He wanted us to go out and observe a situation that we weren't familiar with…. I watched my mother-in-law, who was a nursing home assistant. It taught me how to really observe. It allowed me to see how often things change [because they are being observed].

Another discussed how a conversation about how students from different cultures learn differently triggered his transformative learning:

> I remember thinking, "Oh my God, some of my students, it's not them, it's me." And any teacher worth his salt is going to try to change that, and I still remember talking to the professors and some other people right off the bat… I said it out loud, "I have screwed up so many students!"… That was probably the moment where it kind of hit me…

Participants agreed that the triggers they described were entry points for learning that continued during the remainder of doctoral studies and beyond.

When we asked participant what types of transformative learning they had experienced in the program, responses fell into one of two broad categories: (a) changes in beliefs, values, and attitudes and (b) changes in behaviors. Changes in beliefs, values, and attitudes encompassed the following:

- Became committed to social justice
- Changed worldview
- Changed beliefs about students
- Began to think of self as scholar
- Increased courage and confidence
- Changed beliefs about what adult education is

Changes in behaviors included the following:

- Became more culturally responsive
- Learned to be self-directed
- Became a lifelong learner
- Learned to be a better communicator
- Changed how she or he treats others
- Improved ability to work as a team member

It is the intent of the doctoral program that transformative learning

during the program provides a foundation for continued transformational learning throughout graduates' careers. Nearly all of the participants reported that the transformative learning they experienced in their doctoral program persisted after they graduated. The participants did not clearly separate continued transformative learning after graduation from improving their professional performance. Given the program's focus on praxis, the fusion of transformative learning and improved professional performance is not surprising. As one participant succinctly put it, "Your job is to learn and teach."

Participants talked about fostering their own transformative learning by critically reflecting on their leadership or teaching, engaging in dialogue with colleagues, and self-directed inquiry. One participant discussed a self-directed inquiry project she was formulating:

> Can you be a relational leader—the caring aspect of it—can you do that and be transformative? Does relational limit that? I really see myself on the road to doing this because I want to know. And I would have never even cared about finding research questions for myself without this program. There is no other way to attribute the level of inquiry I have except that it came from that [doctoral] program. And right now it's all about leadership and how I can be the most effective leader for change.

Fostering Transformative Learning
in Other Educational Communities

Several participants were teaching at the university or college level and described fostering their students' transformative learning. We will first share results relative to this subgroup's teaching, then shift to results across the entire group of participants. Graduates teaching at universities and colleges reported that they worked to develop relationships with their students as a first step toward fostering the students' transformative learning. A participant reported,

> That's one of the things that I've pushed myself to do—establish rapport with the students. Not just my students, but any student. I stop and talk to people. I ask them how they are doing. I'm really concerned about their well-being. And I tell my students I care about them more than just as students.

Participants who were teaching at the college or university level believed the doctoral program helped them to improve their teaching in ways that facilitated transformative learning. They described borrowing teaching strategies their professors in the doctoral program had used and adapting those strategies for their own classes. A university faculty member stated,

Some of the things I've learned in the program…I've instituted here. The first few years I was teaching before I joined the Ph.D. program I was just doing the same thing and going through the motions. Now I actually try to build upon what we've done before. I tweak the class by doing something a little bit different in the hopes that I'm improving my product. And that's what I think the program has afforded me that's been the greatest help.

The doctoral program emphasizes the empowerment of faculty and students and the need for all stakeholders to have a voice. A participant described how being a student in the doctoral program inspired him to begin a student organization at the university where he taught:

The Ph.D. program, from the very beginning, it was finding our voice, finding the voice for students, finding the voice for people who aren't heard… And I guess that it is the key event [in my work]…students saying they need a voice. They need a venue or a way to let the department, and the college, and the university know what some of their concerns are.

Other participants were inspired by the doctoral program to become mentors of students who were having difficulty with their studies. A participant explained,

This is a concentrated, concerted effort since I have been in the [doctoral] program…dealing with the student that may be first generation, small town, separated from family, barely hanging on sometimes. There have been four or five students in the last five years, usually one or two per cohort that I'm teaching, that I can spot, and I have made a concerted effort to try and get through to them through mentoring, and try to teach them how to approach being successful in this field, and how to carry that forward into perhaps things that they never dreamed of. I have gotten them to start reflecting, and thinking about how they can change their lives, plus their siblings' lives…and become models so that their brothers and sisters might want to come to college.

Participants who were teaching at colleges and universities also encouraged students to look beyond themselves and work toward improving their environment. A participant shared,

You have to get people to think about not just themselves. What can they do to improve the community? What can they do to improve the university? What can they do to improve the department? Because when you worry about those things, you improve yourself eventually.

For the remainder of this section we move beyond the results for graduates who taught at universities and colleges to the entire group of research participants. The perception of participants who were faculty

in higher education that building relationships was the basis of fostering transformative learning extended to the larger group. A participant who was a school principal stated,

> I made space to have conversations with people. As much as it drives me crazy, parents can walk in and out… teachers can just walk in… that was one of the biggest things I focused on—building relationships.

Similarly, the director of a state education agency shared,

> It's learning people's personalities, learning people's skills and strengths. It's always a reciprocal exchange when we communicate.

Participants working with practitioners sometimes provided traditional professional development to promote transformative learning. A principal discussed her professional development efforts with teachers:

> I really do push people here. We are going to read, we're going to learn together. I want to know from you what you want to learn, and read. I may not know it but let's learn it together. I think that's the best way to continue our learning.

More often, however, participants used a variety of less direct methods to foster transformative learning. One such method was modeling. An administrator discussed modeling interpersonal skills:

> The whole business of active listening, effective communication, and understanding, [how] to view situations from other positions, from other perspectives…. Oftentimes folks who work with me will be in the room when I have an interview with an employee, so they get to observe the approach that I use while having that conversation and they perceive the increased effectiveness, and I really think it is transformational.

Participants reported that, due to the power of their own critical reflection in their doctoral studies, they fostered critical reflection in the educational communities in which they worked. The critical reflection fostered by participants took many forms, including reflective journaling, reflection in collegial groups, reflective components built into professional development programs, and so on. Participants told us they encouraged students and educators to ask critical questions and challenge the status quo. They also challenged students and practitioners to get involved in efforts to improve their organizations and communities. A principal discussed this strategy:

> I really like to encourage teachers. If they feel very strongly about something, I like to help them to understand why. And if they feel that it is something that is going to help change here, make it better for us,

make it better for the children, then I encourage them. "Go for it…Tell me how I can support you!"

Introducing critical reflection to students or practitioners was not always easy for participants. A staff developer at a state intermediate unit shared the following about educational leaders she worked with:

> They would be really uncomfortable or reluctant because they had never been reflective before. They were used to being reactive, to being problem solvers, to being leaders, to making decisions and having answers, and for a lot of them it was really uncomfortable.

Practitioners in many educational communities today are dealing with heavier workloads, rapidly accelerating technology, and an increasing need for change in professional practice due to demographic and cultural changes. Participants believed that critical reflection is an important part of the change process, but also noted that with all of the increasing demands on practitioners it was difficult to find time for reflection.

> The problem is that reflection requires time. There are so many challenges that they have to deal with concurrently. There is just so much to do that in order to reflect you really have to create space for yourself. Ironically, that's the problem; there is less time to reflect.

Participants said they fostered praxis within their learning communities by asking students and educators to identify professional problems, read and reflect on theory related to those problems, apply theory-based strategies, and reflect on the effects of their actions. The majority of participants who were educational leaders tried to build praxis into the daily work of supervisees. For example, one participant worked with his staff to integrate praxis into his department's ongoing formative program evaluation. Another built praxis into an institute for school leadership teams working on school improvement projects. Another strategy used by participants was to assign individuals to leadership roles in selected projects, and mentor them during their leadership activity with the purpose of facilitating praxis resulting in transformative learning.

Participants reported several changes in their educational communities that they attributed to the transformative learning they had fostered. A few examples follow:

- Improved employee-management relationships
- Improved relationships with external stakeholders
- Distributed leadership
- A more culturally responsive learning community
- Improved communication and collaboration across the learning community

While most of the participants' discussions about fostering trans-

formative learning focused on their professional work settings, some discussions were about promoting transformative learning in other educational communities. Efforts to support transformative learning to other settings took the form of publications, presentations, service to outside organizations, and developing networks of educators committed to transformative learning. One graduate discussed her support of project-based learning, which she believed was a vehicle for transformative learning, in her child's school:

> That's been an ongoing fight for me, to keep project-based learning in our school. I feel like I'm fighting for and advocating for something that has a much larger impact than just me or just my own child. So instead of just wiping it away, we are now having the discussions about how we can make project-based learning better. This is something that is currently going on that I might not have been involved in had I not gone through this [doctoral] program. We want people who can critically think, people who can make choices, people who know how to get along, people who know how to challenge authority—these are things that we need to have happen and that would not be happening if I had not been there advocating for them.

Whether the stories told by participants were about their efforts to promote transformative learning in individuals, groups, or organizations, they always traced their efforts back to their own transformative learning experiences in the doctoral program.

Discussion

The findings indicate that nearly all the program graduates that we interviewed engaged in transformative learning during the program and after graduation in ways that impacted not only their personal growth but also their ongoing work as members of learning communities within schools, colleges, universities, state education agencies, and adult education programs. These findings link in numerous ways to the theoretical framework used to guide the study.

Participants engaged in several different types of transformative learning as described by Mezirow (1981, 2000). Transformative learning in the instrumental domain, concerned with content and processes, was evident in the numerous examples in which alumni describe their improved abilities to listen to, communicate with, and relate to various colleagues and stakeholders. Transformative learning in the communicative domain, concerned with changes in premise, were seen in their statements pointing to new ways of thinking about their own capacities and those of the learners, families, and professionals they interact with.

Transformative changes in points of view were revealed as participants discussed various changes in their beliefs and values, shifting toward ones that were more open-minded and inclusive. Participants also reported encouraging educators and students to look beyond themselves for ways to improve their learning community.

Changes in more global habits of mind were evident in those who changed their psychological perspectives by coming to see themselves as self-directed learners and scholars, as well as those who changed sociocultural perspectives and gained new insights about the importance of being a relational leader and viewing learners and communities from an assets-based perspective. Some, but not all, experienced changes in frames of reference or worldview, such as the faculty member whose encounter with the concept of deficit thinking led him to wonder how many students he may have unwittingly damaged along the way, and who reported subsequently approaching each class of new students in a different way. The majority of those interviewed spoke of less dramatic changes as they progressed through the program, citing key assignments and ongoing interactions with professors and peers as prompting critical reflection. Participants' descriptions of some types of transformative learning they facilitated within an educational community speak to transformation beyond the individual and personal level, and resonate more closely with transformative learning linked to social action as described by Freire (1970).

A key catalyst in participants' transformative learning was critical reflection. They pointed to numerous program elements as fostering critical reflection, including reflective writing, the portfolio submitted as part of the comprehensive examination process, and various course assignments. Participants' descriptions of critical reflection provide examples of all three domains of criticality proposed by Barnett (1997): criticality of knowledge, manifest as critical thinking; criticality of the self, manifest as self-reflection; and criticality of the world, manifest as critical action. Nearly all participants spoke of heightened critical thinking that prompted them to question taken-for-granted assumptions and become more open-minded and less judgmental, critical self-reflection which caused them to see themselves in new ways (e.g., as emerging researchers and scholars), and critical action (e.g., engaging more often in dialogue and working to make their schools, organizations, and communities more inclusive).

A concept closely linked to critical reflection that guided the study was that of praxis, the union of critical reflection and action. Nearly all participants were able to give examples of praxis. However, they also spoke about the challenges of fostering praxis within their work

environments, given the many demands placed on educators today and their lack of time and space for moving beyond work routines.

A final element considered integral to the design of the program is the communal aspect of transformative learning. Building on concepts of collegial culture (Glickman et al., 2010) professional community (Arbuckle, 2000) and communities of practice (Wenger, 1998), the program aims to build a community of learners that can serve both as a safe space for the discourse that Mezirow describes, and as an incubator for developing the skills and dispositions graduates need to foster transformative learning and change in their workplaces and communities. Participants credited program relationships, diversity, and dialogue with sparking their critical reflection about their own beliefs and values as well as larger educational issues. They spoke repeatedly about the benefits derived from being part of a cohort, and in particular about the role that diversity of the cohort played in contributing to the dialogue that stimulated their transformative learning.

Significance of the Study

This study contributes to the knowledge base by examining the degree to which graduates of a program designed to promote transformative learning by fostering critical reflection, praxis (Freire, 1970), and the development of learning communities (Wenger, 1998) continue to engage in such learning in their professional settings following graduation. It reveals how graduates of such a program facilitate transformative learning among students, fellow educators, and communities, as intended by the Ph.D. program designers. The findings add to our understanding of program design and instructional practices that contribute to transformative learning among doctoral students in educational leadership preparation programs, continued transformative learning of graduates in leadership roles, and the fostering by those graduates of others' transformative learning.

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