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Special Issue: Preparing Educational Leaders

Guest Editors: Michelle D. Young, Meredith Mountford, and Gary M. Crow

Introduction

Preparing Educational Leaders: A Roadmap to Success

Michelle D. Young, Meredith Mountford, and Gary M. Crow

Many have argued that educational leadership preparation programs are under siege (Young, Pertersen & Short, 2001). Although the mounting national attention can be traced back to the 1980s and perhaps earlier, the past few years have been witness to highly objectionable media commentaries and politicized disputes about leadership preparation. During this time, a focus on standards and higher education accountability—and with it a shift from emphasizing preparation program strengths to focusing on candidate knowledge and skills—has come to dominate the educational leadership agenda. At the same time, there has been a decrease of funding to higher education as well as considerable growth in alternate routes into educational leadership, for example, online certification and degree opportunities, and for-profit leader preparation centers. A variety of alternative programs--Boston Aspiring Principal Training, The Broad Center for the Management of School Systems, The Broad Residency in Urban Education, KIPP charter schools' principal training model, National Institute for School Leadership, New Leaders for New Schools, New York City Leadership Academy, and the San Diego Educational Leadership Development Academy--have emerged as ways to prepare individuals from a variety of backgrounds to become school and school system leaders.

Indeed, the challenges facing educational leadership preparation are certainly complex. However, this is only part of the story. This story of struggling, impoverished leadership programs overlooks the aggressive and complex changes underway in leadership preparation programs across the nation. It leaves the impression that leadership preparation programs are passive recipients (or resisters) of reforms, and that faculty-led efforts to improve leadership programs are non-existent or barely underway. This, unfortunately is a sad, and overused misrepresentation of reality. In fact, across the nation, many faculty members have been working to improve leadership preparation for

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years. Their efforts range from realigning programs to address national leadership standards to drastically reforming and restructuring ineffective programs.

This special issue of *Educational Considerations* explores the preparation of educational leaders, highlighting issues of pedagogy, student and program evaluation, and the transference of learning from higher education to the PreK-12 environment. The articles belie the oft-heard critique that leadership preparation is interested only in self-preservation. To the contrary, the articles included in this issue are forward-looking—focusing on improving program curricula, pedagogy, and entire programs in order to better support candidate learning.

The issue contains four articles in addition to the Introduction. Here, we provide an overview of each of the articles and then discuss several themes common among the pieces that we believe make them thought-provoking contributions to the growing knowledge base on leadership education. We then expand this discussion and link the practices described in the articles to the work of the Joint Research Taskforce on Educational Leadership and the efforts of the University Council for Educational Administration (UCEA) to identify a signature pedagogy for educational leadership preparation. Finally, we chart a path to improved leadership preparation that builds on efforts like those described in this special issue.

The first article, "Transferring Learning from the Classroom to the Workplace: Challenges and Implications for Educational Leadership Preparation," by Bruce G. Barnett, explores how knowledge and skills learned in university classrooms are best transferred to other environments. In particular, Barnett is concerned with how the transfer of knowledge about leadership for school improvement obtained in preparation programs can be transferred to the workplace. The concept of transfer, particularly the factors influencing successful transfer of knowledge and skills from one context to another, are considered in-depth. Barnett also highlights the specific challenges educators face when attempting to assist aspiring school leaders to apply ideas and lessons learned to the workplace and suggests strategies for promoting both knowledge and skill transfer.

The second article in this special issue, by Kathleen M. Brown, is titled "Transformative Adult Learning Strategies: Assessing the Impact on Pre-Service Administrators' Beliefs." This article describes a pedagogical approach that interweaves Mezirow's (1990) work on transformative learning theory with adult learning strategies and explores the effects of using this alternative, transformative andragogy in an educational leadership preparation program. According to Brown, this pedagogical approach enables university faculty to teach through the challenges associated with preparing educational leaders for equity and social justice and supports future leaders' development as transformative intellectuals who can take a broader, more inclusive approach in addressing issues of student learning and equity.

The third article, "Learning Outcomes of an Educational Leadership Cohort Program," by Pamela D. Tucker, Cheryl B. Henig, and Michael J. Salmonowicz, focuses on the evaluation of student learning from program perspective. Specifically, this article describes a new approach to program evaluation that focuses on students' "direct learning outcomes" (Orr, 2003). Following the description of the process, the authors share the results of using the process within the educational leadership program at their home institution.

Like the third article, "Standards-Based Leadership Preparation Program Improvement Through the Use of Portfolio Assessments," by Donald G. Hackmann and Thomas L. Alsbury, focuses on the

evaluation of student learning. However, these authors take a rather different approach and discuss the way that data on student learning outcomes can be used for program improvement. Specifically, this article describes one educational leadership program's experiences with using ISLLC-aligned student portfolios to assist in assessment of the program's effectiveness in preparing aspiring school principals.

As these articles demonstrate, there is a strong interest in ensuring that educational leaders are well-prepared to lead schools in which students can be successful. Importantly, the articles in this issue focus on pedagogy (supporting student learning), on evaluation (measuring student learning) and on using data that are collected on student learning and student experiences to continually improve programs. We believe that more and more faculty are focusing on such issues. Indeed, all of the articles that we reviewed for this special issue (over 25 manuscripts) focused on one of more of these issues. Moreover, the increased participation in the Teaching in Educational Administration Special Interest Group of the American Educational Research Association (AERA) and the large number of individuals involved in the Joint Research Taskforce on Educational Leadership Preparation indicate a keen interest in understanding how to ensure that educational leadership preparation supports strong school and district leadership.

Although the attention that leadership preparation programs are receiving is primarily critical in nature, members of the educational leadership field consider this national attention as an opportunity for positive and substantive change. In fact, the array and scope of reform initiatives around educational leadership is quite impressive. For example, faculty of leadership preparation are undertaking substantial self-assessment—through state and national accreditation processes, a Taskforce on Evaluating Leadership Preparation Programs (www. aera.net/?id=440), some state requirements, and individual program initiatives (Young, Crow, Orr, Ogawa & Creighton, 2005).

Some reform efforts have been led by professional associations, states and foundations. For example, the Interstate School Leadership Licensure Consortium (ISLLC), a consortium of 32 educational agencies and 13 education administration associations, developed a set of standards currently being used in many states and institutions to reform and assess preparation programs. In 2002, the ISLLC standards were integrated into the National Council for Accreditation of Teacher Education (NCATE)/Educational Leadership Constituent Council (ELCC) Program Standards for evaluating leadership preparation programs for national accreditation, and are used as the basis for standardized leadership tests. States and other organizations have expanded these standards to further improve their impact --- organizations include the Southern Regional Education Board (SREB), the National Association of Elementary School Principals (NAESP), and the Mid-continent Research for Education and Learning (McREL) (Young, Crow, Orr, Ogawa & Creighton, 2005).

Additional reforms have been spurred by the State Action for Educational Leadership Preparation (SAELP) grants, funded by the Wallace Foundation. Additionally, the National Commission for the Advancement of Educational Leadership Preparation (NCAELP), sponsored by UCEA and the National Policy Board for Educational Administration (NPBEA), developed a series of studies based on changes in school leaders' roles, identified recommendations for reforming preparation programs and professional development, and advanced a national research taskforce on educational leadership preparation. Moreover, based upon the work of NCAELP and current research on high quality leadership preparation, UCEA revised its membership standards.

Over 70 doctoral granting institutions, all members of UCEA, have the following quality characteristics in common: 1) Program faculty identify, develop, and promote relevant knowledge for the leadership field; 2) Programs involve a critical mass of full-time leadership faculty members, who exhibit excellence in scholarship, teaching, and service; 3) Programs collaborate with practitioners and other stakeholders in candidate selection, program planning, teaching, and field internships; 4) Programs collaborate with scholars, practitioners, and other stakeholders to inform program content, promote diversity within their program and the field, and develop sites for clinical practice and applied research; 5) Programs are conceptually coherent, aligned with quality leadership standards, informed by current scholarship, and incorporate best practices in leadership preparation; 6) Programs engage in ongoing programmatic evaluation and enhancement; 7) Programs include concentrated periods of study and supervised clinical practice in settings that provide an opportunity to work with diverse groups of students and teachers; 8) Programs are characterized by systematic recruitment and admission plans that use multiple sources of evidence and purposive recruitment of a high quality and diverse applicant pool; 9) Programs maintain systematic efforts to assist students in placement and career advancement; 10) Program faculty participate in professional development programs for educational leaders, in cooperation with professional associations and other stakeholders; and 11) Programs offer regular professional development for leadership faculty to enhance their skills in leadership preparation and research methods (UCEA, 2004). We believe these program standards in conjunction with quality leadership standards (e.g., ISLLC) form the basis of effective leadership preparation and would recommend their widespread adoption.

We believe that the reform contributions made by UCEA to the field have been particularly significant. For over fifty years, the UCEA consortium has worked to ensure that its membership criteria and program efforts support quality leadership preparation. In addition to its development of quality membership criteria, UCEA supported the development of the ISLLC standards; works with other professional organizations to the benefit of leadership preparation and policy; sponsors program centers focused on important issues in educational leadership; publishes case studies, other instructional materials, research and discussions of critical issues in our field; holds an annual conference attended by faculty and practitioners to present relevant research on leadership and leadership preparation; established a national network of graduate students of color to facilitate their entrance into the leadership professorate; and cosponsors a national research seminar for graduate students in educational leadership.

During the last two years, UCEA has held conversations to inform the signature pedagogy of educational leadership. Following on the work of Lee Shulman and the Carnegie Initiative on the Doctorate, UCEA members have focused attention on what is unique in the preparation of educational leaders that is aligned with practice. Instead of promoting a one-size-fits-all orientation, this ongoing conversation has sought to both understand and critique what is distinctive about the practice of educational leadership that should be reflected in leadership preparation programs. This discussion also aligns with the conversations that UCEA member institutions are having regarding the nature and relevance of a professional Ed.D. degree and the reforms of these degree programs.

From our perspective, we have before us an opportunity to make some important and positive changes in the field of educational leadership. There is a great deal of energy around the improvement of

educational leadership preparation and some very important projects underway. To further support positive change in our field, we believe the time has come to develop a national reform agenda for educational leadership preparation. Below, we offer our initial sketch of such an agenda. We designed it with an awareness of the work already underway in our field and see it as building upon the program work and reforms described above.

In developing this agenda, we begin by identifying what we believe needs to change in our field in programs, at the university level, and within the broader context. Specifically, we believe that at the program level the following areas need to be addressed: 1) low performing programs; 2) models of effective preparation program based not on the uniqueness of educational organizations; 3) substantive and effective internships; 4) standards, evaluation, and accreditation of leadership programs; 5) regular and non-regular faculty issues; and 6) continuous performance improvement of leadership programs. At the university level, changes are also needed. We identify the following as problematic: 1) professional school versus arts and sciences model for education; 2) redefining faculty workload, incentives, and evaluation; 3) redefining what counts as scholarship; 4) bureaucratic nature of higher education institutions and the difficulty of changing programs and courses; and 5) the professional Ed.D. degree. Within the broader educational and economic context we believe that attention needs to be given to the following issues: 1) partnerships with local districts and agencies; 2) economic environment (e.g., resources, financing, quality internship and private sector investment in higher education reform); and 3) state responsibility for funding, evaluating, and promoting leadership preparation reforms.

After identifying areas which changes are needed, we believe a national reform agenda should discuss identified levers for change, including influencing ideas, programs and policy. With regard to ideas, we agree that we need to ensure that we effectively communicate and disseminate information on the work that is being conducted in our field, including program work, research, and policy work. It is essential that as this work is done that it is shared broadly through academic journals, practitioner magazines, and conferences. In addition to influencing ideas, we believe that we must use quality research on preparation to influence programs. We believe that major emphasis must be placed on providing faculty with the mechanisms to evaluate their programs and that data from such evaluations should be collected in a central location in an effort to inform the field of our progress. Additionally, we believe it is important that the field come to agreement on the characteristics of a quality educational leadership program and then commit to (re)designing programs around those characteristics. However, we must speak plainly here. We do not believe that all programs should look alike, and it is not our intent that they should; rather we believe that there should be a common set of core quality characteristics that define preparation programs in our field. Finally, we believe that programs should undertake periodic self-assessments that are conducted in conjunction with a critical friends or APA style program review. With regard to influencing policy, we believe our field needs a national conversation or a set of regional conversations that involve major leadership stakeholders and are focused on supporting positive change in educational leadership preparation programs. Such a conversation has begun with the National Commission for the Advancement of Educational Leadership Preparation and should focus on a national agenda to investigate and promote quality leadership preparation. We also believe that it is important that we, as a field,

begin to build alliances outside the field of education with organizations that also have children's best interests in mind.

As Young, Petersen, and Short (2001) point out: "The challenges that face educational leadership preparation are multifaceted and complex. Neither reactionary behavior, such as caustic remarks or finger pointing, nor well-intentioned but ill-guided policy interventions, such as alternative certification, will "fix" educational leadership preparation. There are no simple solutions, no quick fixes" (p.140-141). Indeed, our approach to supporting positive change must be thoughtful, research-based, and comprehensive.

This issue of *Educational Considerations* supports positive reform in educational leadership preparation. It not only delineates a strategy for large-scale, research-based improvement, but also it shares several excellent examples of scholarship on leadership preparation. This scholarship contributes important perspectives to the knowledge base on leadership preparation and exemplifies the strong commitment of leadership scholars to quality preparation.

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Transferring Learning from the Classroom to the Workplace: Challenges and Implications for Educational Leadership Preparation

Bruce G. Barnett

As American education enters the 21st century, cries for improved school performance are being voiced by parents, state departments of education, and the federal government. The recent "No Child Left Behind Act" underscores the current pressures on schools to be held accountable for raising student learning outcomes, often referred to as *school improvement* (Harris, 2002). School improvement is most likely to occur when educational leaders are able to implement innovations "that result in an enhanced environment for student and teaching learning" (Swygert, 2004, p. 2). School leaders, therefore, are constantly seeking innovations intended to improve student performance. Data-driven school improvement emphasizes the need to design and implement programs and practices that result in measurable student learning (Gregory & Kuzmich, 2004; Johnson, 1997). Today, more than ever, teachers and principals are focusing on the core technology of teaching and learning in order to influence schools' instructional capacity (e.g., Blase & Blase, 2000; Darling-Hammond, 1998; Little, 1982; Pajak & Glickman, 1989).

Because leadership for school improvement is now becoming essential for future principals, educational leadership preparation programs must adequately prepare administrators for this important role. Such demands, however, raise two fundamental questions: (a) How do preparation programs affect graduates' professional workplace practices; and (b) Do these practices result in schools that are more effective for staff and students? Clearly, determining these types of effects on graduates and their school organizations is no easy task. According to Browne-Ferrigno and Muth (2003):

> Measuring transference of cohort-based learning to professional practice in school leadership can be difficult, and it surely will be labor-intensive, costly, and time-consuming. Nonetheless, accountability for the effectiveness of professional development programs requires better data than passing rates on exams, career-placement results, or anecdotal data from graduates and faculty. Short-term and longitudinal studies are needed to trace and examine the transference of students' learning in cohorts

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to practice settings and to graduate's professional practices as educational leaders (p. 634).

Given the importance of preparing administrators who can lead school improvement efforts, the purpose of this article is to explore ways in which the knowledge and skills about leadership for school improvement obtained in preparation programs can be transferred to the workplace. Although I do not promise definitive answers to this complex issue, I will begin by examining the concept of transfer, particularly the factors influencing successful transfer. I then outline the specific challenges educators face when attempting to assist aspiring school leaders to apply ideas and lessons learned to the workplace. Promising strategies for promoting transfer are identified before concluding with some final implications for educational leadership preparation programs.

Learning Transfer

Learning transfer is not a new idea. Ancient philosophers and religious scholars constantly sought to understand how individuals connect their knowledge with their social context (Beach, 1999). In today's educational settings, many of the instructional strategies we employ are based on these early principles of transfer. For instance, vocational education, basic skills instruction, critical thinking, and problem-based learning are intended to assist students to apply knowledge gained in one setting to another context (Beach, 1999; Bridges, 1992; Hunter, 1971). As noted earlier, many of today's educational institutions, particularly K-12 public schools, are facing unprecedented pressure for reform. In many instances, districts and schools are being pressured by the public, particularly politicians and local community leaders, to improve student performance. As a result, educators are being urged, and sometimes forced, to employ new teaching and assessment methods that have been used in other settings. Therefore, to better understand the concept of learning transfer, I examine the importance placed on this learning concept and the major factors that influence the transfer process.

Importance of Transfer

Caffarella (2002) identifies several underlying reasons why transfer has captured the public's attention, which have strong implications for educators. First, most employers want to know that their investment of human and financial resources in training and development programs are affecting employees' performance and the organization's productivity. Second, as communities struggle with mounting social problems resulting from poverty, violence, and substance abuse, civic leaders are constantly searching for programs and practices that will affect social agencies and the lives of community members. Finally, the rapid pace of life in our modern society, fueled by the knowledge explosion, constantly forces individuals to adapt their lifestyles and challenges them to absorb and apply new information.

Despite educators' and the public's desire to transfer knowledge and behavior from one context to another, there is little empirical evidence that learning transfer exists:

> Most studies fail to find transfer... [T]hose studies claiming transfer can only be said to have found transfer by the most generous of criteria and would not meet the classical definition of transfer. ... In short, from studies that claim to show transfer and don't show transfer, there is no evidence to contradict Thorndike's general conclusions: Transfer is rare, and its likelihood of occurrence is directly related to the similarity between two situations. (Detterman & Sternberg, 1993, p. 15)

If this dearth of evidence is true, what accounts for the lack of success in transferring knowledge and behavior from one setting to another? Later in the article, I will describe promising learning transfer strategies; however, I first turn to some of the underlying factors that educators must account for when attempting to establish transfer.

What Influences Transfer?

To understand what influences transfer, Marini and Genereux (1995) identify three important factors:

At one time or another the importance of each basic element of transfer–*task, learner, and context*–has been emphasized by educational theorists. Given that each element plays a key role in the transfer process, taking all three into account when designing instruction is most advisable. (emphasis added, p. 5)

Transfer is about changing behavior in a new context. Therefore, as Marini and Genereux (1995) suggest, educators invested in transfer must understand the: (a) actions that are being transferred (task); (b) individual's ability to cope with change (learner); and (c) social and organizational dynamics of the setting (context). Each of these topics will be explored below.

Features of the task. The specific tasks or actions that are to be performed in a new setting must be considered when teaching for transfer. Understanding how an innovation is diffused or spread throughout an organization provides insights about the features of the task. Rogers (1983), for instance, identified the following features as being critical to adopting an innovation: relative advantage, compatibility, observability, trialability, and complexity. In other words, if the innovation (task) is not seen to benefit individuals or the organization, is extremely complicated to implement, and is difficult to see in practice, then the likelihood of implementation is greatly reduced. Another strong factor in transfer is the similarity of the task demands between the learning situation and the work setting (Detterman & Sternberg, 1993; Hunter, 1971). The more similar the tasks in these two settings, the greater the possibility that transfer will occur. Therefore, astute instructors and program planners must consider the features of the task or innovation when developing learning activities that are intended to replicate this same task in the workplace (Caffarella, 2002).

Features of the learner. The manner in which individuals cope with innovations can greatly affect how they transfer new information and skills to the workplace. Clearly, previous history with change influences individuals' willingness to apply their learning in new situations (Caffarella, 2002). As Hall and Hord (1987, 2001) have discovered, individuals experience a series of concerns when dealing with change. *Self concerns* emerge as individuals question their knowledge about or capacity to put new ideas into practice. As they overcome these initial trepidations, *management concerns* arise as individuals begin to struggle with implementing new ideas for the first time. In the early stages of their implementation, these novel approaches feel awkward and unnatural; however, with practice and ongoing support, management concerns tend to fade. Finally, as individuals become comfortable with the innovation, they experience *impact concerns*, where attention is given to how to the innovation influences other people and how it might be adapted for greater impact in the future.

One of the critical aspects of assisting educators to cope with change is to provide them with opportunities to reflect on their concerns in order to reveal underlying biases, values, and past practices that may assist or impede with learning transfer. In helping educational practitioners improve their reflective habits, David Kolb's (1984) experiential learning theory is a useful means of conceptualizing reflection. In their work with educators, Barnett, O'Mahony, and Matthews (2004) have slightly revised Kolb's original model to make it more "user friendly" for educators and to capture the reflective process in three distinct phases: "What? So What? Now What?" Figure 1 shows the interrelated phases of the three-step reflective process. First, when recounting an event (concrete experience, reflective observation), the question, "What occurred prior to and during this event?" is being addressed (Phase 1: What?). Next, when seeking to understand the underlying reasons why the event occurred (abstract conceptualization), the question, "What have I learned about this event?" is being posed (Phase 2: So What?). Finally, to anticipate how to use what has been learned in the future (planning for implementation, active experimentation), the question, "Based on what I've learned, what am I going to do similarly or differently?" is answered (Phase 3: Now What?).

Figure 1
Model of Reflective Thought and Action

Concrete Experience
(an event)

Active Experimentation
(purposeful action)

Phase 1:
WHAT?

Phase 3:
NOW WHAT?

Reflective Observation
(what happened during event)

Planning for Implementation
(future action; success indicators)

Phase 2:
SO WHAT?

Abstract Conceptualization
(insights about the event)
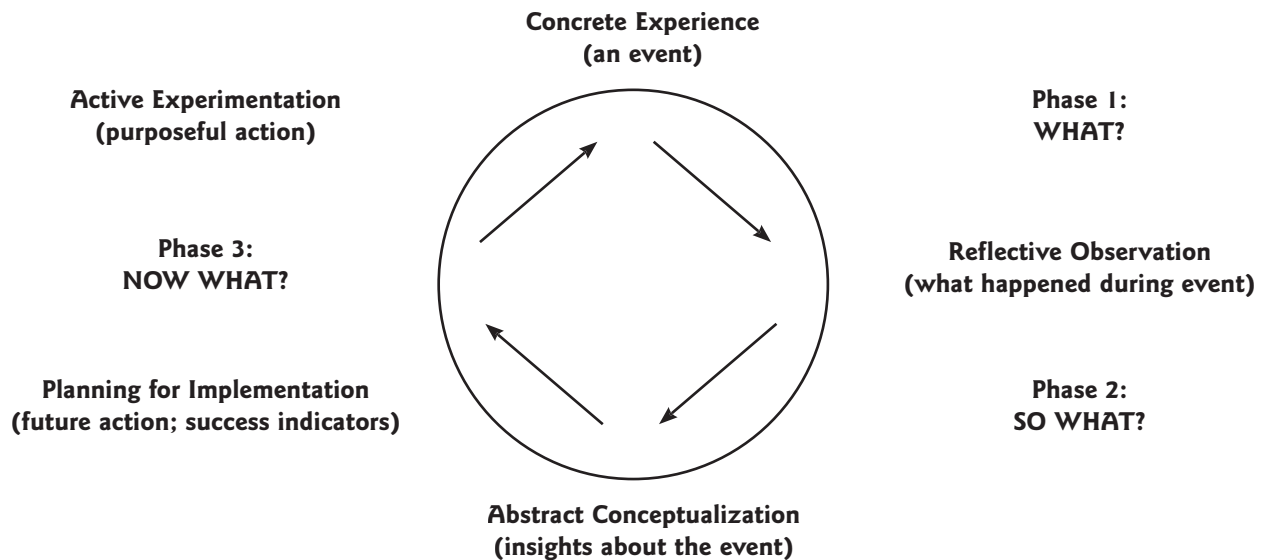
Learning transfer begins to surface at the intersection of Phases 2 and 3. In order to encourage critical thinking and purposeful action, reflective practitioners must anticipate the possible consequences, outcomes, and results of their actions prior to encountering future events. These insights allow them to express self and management concerns prior to attempting to transfer the innovation to the workplace. As the innovation is practiced during the active experimentation phase, further reflection can reveal ways in which the new practices or information is working as anticipated. If it is not meeting some of the anticipated outcomes identified in the planning for implementation phase, then appropriate adjustments can be made.

Features of the organization and social context. In addition to the task being transferred and how individuals cope with change, organizational and social factors can influence transfer. The organization's previous history with change, particularly events that have thwarted or supported new initiatives, can affect attempts to transfer new practices and programs to the workplace (Caffarella, 2002). Two important organizational conditions significantly influence learning transfer. First, *internal conditions*, particularly human, material, and symbolic support, are critical if an innovation is to be successfully implemented (Berman & McLaughlin, 1976). Collegial support and interest is perhaps the most essential internal condition for fostering change and innovation (Fleisher, 1985). Second, economic, social, and political factors are critical *external conditions* that can affect the implementation of new practices, policies, and programs in organizations (Berman & McLaughlin, 1976; Caffarella, 2002). Notable examples reveal the effect of these external conditions, such changes in federal regulations and policies (White, 1990) and reductions in funding (Achilles, 1994) on the continuation of new programs.

Challenges of Transfer for Educational Leadership Programs

Increasingly, educational leadership preparation programs are coming under attack regarding their purported effects on administrators' workplace practices (e.g., Brent & Haller, 1998). Given the background on learning transfer summarized earlier, what do we know about the realities and challenges university leadership preparation programs face as they assist future school leaders to transfer skills and information to the workplace? This central question will be explored in this section of the article. First, I briefly describe existing evidence of learning transfer in educational leadership preparation programs. Second, I focus on examples of task, learner, and contextual factors that can impede the transfer of learning communities from preparation programs to the workplace.

Do Leadership Programs Impact Workplace Performance?

Recent attempts have been made by practitioners and researchers to discover how leadership preparation impacts principals and student performance. Perceptions of many program graduates is not positive, indicating they did not believe their programs had much or any influence on their subsequent knowledge and performance (Achilles, 1994; Goldman & Kempner, 1988; Schnur, 1989). Although few empirical studies of the impact of educational leadership programs exist (Brent & Haller, 1998), what has surfaced confirms many graduates' perceptions:

Graduate training in educational administration has no significant positive influence on school effectiveness... If graduate training in school administration improves competence, then the principals of effective schools should, on average, be more highly trained than principals of less effective schools. This is not what we

found." (Brent, 1998, p. 6)

Despite these discouraging findings, there is some recent evidence that preparation and professional development programs influence what occurs in the workplace. Herbert and Reynolds (1998), for instance, have discovered that learning-transfer outcomes are slightly higher when graduate students participate in cohort-based preparation programs. Furthermore, in a recent longitudinal study examining the effects of a professional development program for principals, referred to as the School Leadership Center (SLC), Leithwood, Riedlinger, Bauer, and Jantzi (2003) report that participants' quality of leadership increased, leadership practices were related to student achievement gains, and school conditions improved. The authors concluded:

The external evaluation design does not allow us to attribute the gains we have reported to the SLC program alone... Nonetheless, our comparisons of achievement gains in SLC schools with gains in other comparable schools in the state [demonstrate]... SLC programs seem to be adding significant value to the many other initiatives occupying attention of schools across the state. Of more general significance, our evaluation provides rare empirical support for the claim that well-designed leadership development programs are capable of enhancing student learning. (p. 730)

Other anecdotal evidence suggests that leadership preparation, particularly cohort experiences, have effects on aspiring school leaders. Various social or interpersonal benefits are afforded to cohort students, including community building, conflict resolution, cohesiveness, interdependence, and collaboration (e.g., Geltner, 1994; Norris & Barnett, 1994; Milstein & Krueger, 1997; Reynolds, 1993). Many students and their professors concur the cohort experience can have a lasting influence on learning, noting that interpersonal relationships and professional contacts persist following program completion (Barnett, Basom, Yerkes, and Norris, 2000; Browne-Ferrigno, Barnett, & Muth, 2003; Hill, 1995; Milstein & Associates, 1993; Milstein & Krueger, 1993; Norton, 1995). While some evidence exists to substantiate academic learning effects, including completion rates in programs (Dorn, Papalewis, & Brown, 1995; Reynolds & Herbert, 1995) and learning achievement (Herbert & Reynolds, 1998), "the preponderance of evidence points to affective learning outcomes rather than cognitive ones" (Donaldson & Scribner, 2003, p. 645).

Challengers of Transfer

Thus far, this article suggests there is much to learn about how preparation programs can assist aspiring school leaders to apply new skills and information to their workplace settings. There are particular challenges when attempting to transfer the knowledge and skills obtained in preparation programs to the workplace. These challenges reflect my earlier explanation of the need to understand how the task, learner, and context intersect when attempting to transfer learning from one situation to another. The dilemmas associated with learning community transfer include:

1. Transfer requires the involvement of large numbers of people; yet an individual often is asked to apply preparation program concepts to the workplace (context/learner dilemma).
2. Many internal and external forces are beyond the control of an individual person, especially one who has little or no experience as a school leader (context/learner dilemma).
3. Many innovations, such as school improvement initiatives, are extremely complex and multifaceted, making them difficult to replicate in schools (context/task dilemma).

4. Many differences exist between the original learning situation of the cohort and the school where learning transfer is to occur (context/task dilemma).

Each of these dilemmas will be examined below.

Individual and group application (context/learner dilemma). As Starratt (1995) notes, school-based innovations depend on the collective efforts of members of the organization, rather than on the actions of a single individual. The dilemma for preparation program participants is how to engage members of their own school organizations in an innovation. In most instances, individual teachers enroll in preparation programs, rather than a team or critical mass from the school. Furthermore, graduate students typically are teachers who lack the authority to lead their schools in large-scale innovations. Often, when they do obtain positions of authority, it may have been many years since they participated in the preparation program. As a result, the original program learning can be inadequate for meaningful transfer to occur (Bransford & Swartz, 1999; Lee, 1998; Lee & Pennington, 1993).

Little control over internal and external forces (context/learner dilemma). Another difficulty in transferring knowledge and skills to the workplace is that external forces as well as internal factors can impede the implementation of the innovation (Deal & Peterson, 1999). For instance, if the current school culture encourages unhealthy competition, cliques, and divisiveness, then a complete overhaul of the culture will be needed in order to establish the levels of trust and collaboration necessary for an innovation such as school improvement to thrive. Knowing the difficulties in changing culture, making such sweeping changes can be a daunting task, which can take many years to achieve (Deal & Peterson, 1999; Fullan, 1993; Schein, 1992).

A complicating factor is that most students enrolled in educational leadership graduate programs are teachers who lack the power and authority to deal with these internal and external forces. Typically, individuals make the commitment to return to graduate school without the formal sanction and support of the district or their school. Although school-university partnership programs are being established to create a tighter link between preparation and district needs (e.g., Whitaker & Barnett, 1999), there usually is little or no commitment of the program participants' principals and teacher colleagues to incorporate ideas raised during the preparation program. Not until graduates become formal leaders (which may be many years following completion of the program) will they be in positions of authority to shape the internal and external conditions necessary for innovations to flourish.

Complexity of the innovation (context/task dilemma). Establishing and maintaining school improvement programs is not a simple, straightforward matter. As I have noted, it takes the collective and sustained efforts of many people, not just school leaders. Because of the complex nature of school improvement, transfer can be extremely difficult. As Rogers (1983) notes, the less compatible the innovation is with current practices, the less visible it is to members of the organization, and the more complicated it is, the more difficult it is to implement the innovation. The complexity of school improvement, coupled with internal and external forces that may impede the innovation from flourishing, pose a difficult challenge for leadership preparation programs that strive to help their students learn about and establish this complicated innovation in the workplace.

Program and workplace differences (context/task dilemma). A final dilemma affecting transfer from preparation to the workplace is the dissimilarity between these two contexts. One of the important principles of transfer is that the more similar the two situations, the

greater chance that transfer will occur (Detterman & Sternberg, 1993; Hunter, 1971). As mentioned, there are many differences between a graduate preparation program and a school organization. The most notable is that individual teachers attend graduate school; yet school improvement needs to be embraced by large groups of people in the organization. There are other structural and contextual differences between school organizations and graduate students' preparation programs:

- Graduate students typically meet for substantial time periods (e.g., retreats, weekend sessions, 3-4 hour time weekly time blocks) over the course of one to two years. Members of a school organization rarely engage in such sustained and intense professional development activities. Because teachers tend to be segregated from one another, teach different students, and are responsible for different subject matter (particularly in middle and secondary schools), the task demands of the job tend to minimize chances for collective interaction (Little & McLaughlin, 1993).

- Many graduate students remain as an intact group for most, if not all, of their preparation program; however, schools are dynamic organizations where administrators and teachers are hired and leave quite frequently. Only when new schools are opened, does a faculty and an administrative staff begin at the same time.

- Typically, graduate students are interested in expanding their knowledge and skills about leadership whereas schools are place of employment. Individually, graduate students make a choice to attend a particular preparation program, whereas teachers do not always have control over where or what subjects they teach. Not only must teachers adhere to certain governance structures, policies, and procedure, but they also are evaluated by school administrators, which has bearing on their continued employment. Although graduate students are evaluated by their professors, the stakes are rarely as high since few graduate students are forced to terminate their preparation programs (Dorn, Papalewis, & Brown, 1995).

- Graduate classes usually are much smaller than school organizations. Enrollment tends to be less than 25 students per course; however, school organizations, especially secondary schools, are much larger. When adding students, parents, and community members into the school population, schools become much larger and more complex organizations than graduate classes or programs.

Besides these specific dilemmas associated with learning transfer effects, Leithwood et al. (2003) describe three additional challenges of conducting the types of longitudinal studies envisioned by Browne-Ferrigno and Muth (2003) to uncover transference:

1. *Conceptual challenges* result when attempting to establish direct links between principals' actions and student learning outcomes.

2. *Technical challenges* arise because schools do not always use reliable and consistent measures of student achievement, and locating the same types of schools for comparisons can be problematic.

3. *Relationship challenges* surface when program developers become defensive about and do not trust the formative and summative data they receive regarding how the program is or is not affecting participants and their schools.

Thus far, my argument suggests that it is not feasible for educational leadership programs to be able to assist graduate students to transfer the skills and knowledge necessary for future leaders to establish and maintain innovations in their schools. While the learner, task, and contextual conditions mentioned above raise concerns, I believe there are some ways university preparation programs can directly confront these challenges. One possible approach is to establish school-university partnership programs that not only recruit and identify highly-qualified candidates, but also develop mutually-agreed upon content and expectations for student performance (Erlandson, Skrla, Westbrook, Hornback, & Mindiz-Melton, 1999; Fussarelli & Smith, 1999; Whitaker & Barnett, 1999). These types of partnerships will take time to develop (Trubowitz, 1986) and will require more interdependent organizational arrangements among the partners (Barnett, Hall, Berg, & Camarena, 1999); however, as trust and interorganizational collaboration develop, the likelihood of creating the conditions necessary for learning transfer will increase. Besides partnerships, which will require organizational commitment from all the partners, what are other promising strategies that preparation programs can use to begin to promote the positive learning transfer to the workplace? I now turn attention to answering this important question.

Strategies for Transfer

Faculty who are interested in transfer need to understand what they can and cannot control as their students attempt to apply learning from one situation to another. They have greater influence over the content and program design than the organizational and social context where these innovations are intended to be implemented (Caffarella, 2002). A distinction has been made between two types of transfer: "high road" and "low road" (Perkins & Salomon, 1987). *High-road* transfer requires learners to discover underlying principles and then determine how to apply them in practice. In short, learners must make the effort to discover similarities and differences in the training and workplace contexts when transferring knowledge and skills. *Low-road transfer*, on the other hand, is a more deliberate process where learners practice skills that are similar to other contexts; over time they expand these skills by attempting to apply them to different workplace contexts. Taking these types of transfer into account, this section will summarize a conceptual framework for transfer developed by Caffarella (2002), including activities that can enhance transfer, and describe ways to assess whether the information being transferred is affecting individuals and their organizations.

Conceptual Framework for Transfer

Caffarella's (2002) transfer framework identifies the important factors that faculty can attend to when assisting graduate students to transfer information from the university's instructional setting to their school settings. Her three-part framework is comprised of: (a) the timing of transfer activities; (b) the selection of appropriate transfer activities; and (c) the individuals responsible to ensure transfer occurs. I will examine each of these features of the framework.

Timing. There are a variety of times when transfer can be seriously attended to by faculty, including before, during, or following the completion of a leadership preparation program. For example, when using school-university partnerships, a significant amount of preplanning occurs before these programs are implemented (Erlandson et al., 1999). Decisions about recruitment and selection, program design and delivery, learning outcomes, and individuals responsible for overseeing and delivering the program must be made. One way that

partnerships have attempted to deal with these preplanning issues is to create a steering committee comprised of members from the school districts and university (Whitaker & Barnett, 1999). In addition, as the preparation program unfolds, strategies can be employed to connect course content with practices in school settings. One approach for doing this is to alert field-based mentors of the content being delivered in the program at various points in time. Then mentors can provide learning experiences for students that relate to their university coursework, such as budgeting, staff evaluations, staffing, and curriculum planning. Finally, attention to transfer can occur after completing the program; however, rarely do faculty continue to work with graduates in a concentrated and systematic way. One approach for staying connected with graduates is for universities to play a role in the induction programs that many school districts are now utilizing for novice school administrators.

Selection of activities. Earlier I noted the importance of using reflection as a means for assisting learners to make sense of new ideas and how they might be applied in their settings. There are numerous accounts of how individual and group reflection activities can facilitate transfer (Barnett & O'Mahony, 2002; Caffarella, 2002; Daudelin, 1996; Hole & McEntee, 1999). Barnett, O'Mahony, and Matthews (2004) have identified some of the promising approaches for developing reflection that are available to faculty (see Table 1). They describe four major categories of activities used to encourage professionals' reflective thinking: (a) recounting past experiences; (b) reviewing other peoples' experiences; (c) practicing skills; and (d) integrating theory and practice. When *recalling past experiences*, individuals prepare written exercises and discuss these events with others. Common examples of written exercises include autobiographies, inventories, and journals. Group discussions and critical incident protocols are ways of verbally engaging colleagues in reflection. Carefully selected questions and prompts can facilitate written and oral discussions. For instance, Canning (1991) suggests educators: (a) write about personally important matters; (b) find their voice by defining their personal position; (c) look for compatible and conflicting knowledge; and (d) acknowledge how reflection is working and areas where they continue to struggle. In addition, the "What? So what? Now what?" questions suggested by Barnett, O'Mahony, & Matthews (2004) encourage reflection at different levels or phases. Finally, guided reflection protocols (for individual reflection) and critical incident protocols (for shared reflection) use a series of prompts that focus on the phases of reflection--What happened? Why did it happen? What might it mean? What are the implications for my practice? (Hole & McEntee, 1999).

Besides recounting personal experiences, reflection can be promoted by *examining current and former experiences of other people*. These events can be directly observed and processed using visitation journals and reflective interviews or indirectly explored using case studies of real or fictitious situations. A third way of engaging in reflection is by *practicing skills and receiving feedback on performance*. This feedback can come from another person who has observed an individual's actions (e.g., peer coaching, reflective interviewing) or through data collected at the school level using action research methods. Finally, *connecting theory and practice* not only is a good way to be exposed to new perspectives and concepts, but also allows individuals to compare these perspectives with their workplace practices.

When introducing these reflective activities, instructors should be attentive to the three phases of reflection described earlier (see Figure 1). Learners not only should review the context influencing

Table 1
Examples of Instructional Processes Fostering Reflection

Category	Examples
1. Recounting past experiences	
• Individual preparation	Autobiographies Reflective journals and case records Case stories Educational platforms Self-inventories Guided reflection protocols
• Collective discussion	Critical incident protocols Group discussions
2. Reviewing other people's experiences	
• Direct observation	Observation of experts Visitation journals Shadowing and reflective interviewing
• Indirect observation	Case studies
3. Practicing skills	Problem solving Action research Peer coaching Microteaching and supervised practicum
4. Integrating theory and practice	Learning style inventories Leadership style inventories Reflective writing exercises

Source: Adapted from B.G. Barnett, G.R. O'Mahony & R.J. Matthews. (2004). *Reflective practice: The cornerstone for school improvement.* Victoria, Australia: Hawker Brownlow Education.

the event (Phase 1: What?) and determine the underlying reasons for what transpired (Phase 2: So what?), but also should identify personal insights that can be applied in their own school settings (Phase 3: Now what?). By forcing learners to examine how their current school practices and culture enhance or impede transfer, they will be better able to cope with potential problems and take advantage of positive conditions when applying new practices in the workplace.

Furthermore, instructors need to be aware of how the learning environment affects reflection. For instance, a learner-centered climate, one where ongoing collaboration and strong interpersonal relationships develop between the instructors and the learners, is critical for adult learning (e.g., Norris, Barnett, Basom, & Yerkes, 2002; Panasuk & Lebaron, 1999). Barnett, O'Mahony, and Matthews (2004) list additional features that promote a reflective learning environment:
- Provide emotional support (Berkey, Curtis, Minnick, Zietlow, Campbell, & Kirschner, 1990; Caffarella, 2002).
- Encourage risk-taking and trust by honoring confidentiality, maintaining a nonjudgmental stance, and allowing various perspectives and dissenting viewpoints to be voiced (Berkey et al, 1990; Lee & Barnett, 1994; Norris et al, 2002; Ross, 1989).
- Focus on relevant educational issues, such as student learning, school improvement, and effective teaching (Barnett & O'Mahony, 2002; Berkey et al, 1990; Hannay, 1994).
- Gradually increase the difficulty of problem-solving tasks (Leithwood & Steinbach, 1992).
- Provide constant feedback on performance (Leithwood & Steinbach, 1992; Panasuk & Lebaron, 1999; Ross, 1989).
- Devote adequate time for practicing reflection (Berkey et al, 1990).
- Combine written and oral reflective learning activities as well as individual and collective exercises (Barnett & O'Mahony, 2002; Berkey et al, 1990; Hole & McEntee, 1999; Norris et al, 2002).
- Ensure the size of learning groups allows for individual growth and development (Norris et al, 2002).
- Offer follow-up activities to support implementation (Barnett & O'Mahony, 2002).

Who oversees transfer. Up to this point, it might appear that the individual learner or graduate student is primarily responsible for successful learning transfer to occur. However, I concur with Norris et al (2002):

A variety of people are needed to ensure that the seeds of transfer have a chance of sprouting. Clear expectations about the roles and responsibilities of these people can be communicated from the very beginning of the leadership preparation program. (p. 123)

Besides graduate students, other key stakeholder need to be involved, including the university faculty who design and deliver the curriculum, clinical faculty involved in supervising field-based activities, mentors who oversee students' internships activities, and school district officials. Although having support from district officials and school board members is important for partnerships to thrive (Melaville, Blank, & Asayesh, 1993), the bulk of the responsibility will be shared by instructors, students, and field-based mentors. In addition, the steering committee can provide guidance and direction regarding how information from the preparation program can be applied in school settings; however, those individuals actually designing and delivering the program must be attentive to transfer (Hannay, 1994).

Impact of Transfer

To determine if transfer is successful, a fundamental question needs to be addressed: How would I know if new ideas and information are being transferred to the workplace? This question has been raised by Guskey (2000) and others, especially in determining the degree to which professional development activities impact educators' practices and the performance of their students. A common complaint of professional development is that these types of activities lack meaning, are piecemeal, and have little impact on performance. Therefore, Guskey (2000) maintains that if teachers and administrators are to embrace professional development, then programs must: (a) be clearly focused on learning and learners; (b) emphasize individual and organizational change; (c) introduce small changes and be guided by a grand vision; and (d) be ongoing and embedded in their work. Other features of effective professional development that affect learning transfer include

Table 2
Reflective Questions and data Gathering Techniques for Evaluating Professional Development
(Adapted from Guskey, 2000)

Evaluation Level	Reflective Questions	Ways to Gather Information
Level 1: Participants' Reactions	Did the content make sense? Was your time well spent? Was the instructor prepared and knowledgeable? What are your reactions to the instructional activities? Was the room arrangement conducive to your learning?	Questionnaires Focus groups Interviews Journals
Level 2: Participants' Learning	Were the learning objectives for the session(s) achieved? What did you learn today? What else do you need to learn about this topic? How do you intend to apply information? What facilitated or impeded your learning?	Simulations and demonstrations Participants' oral and written reflections Case studies Participant portfolios
Level 3: Organization Support and Change	What policies affect our implementation? Has adequate time been provided for implementing our goals? How are you supported when trying new ideas? Do central office administrators know about and support your efforts? Are results of new practices being shared with others?	District and school records Written policies Focus groups Interviews with participants and administrators Questionnaires
Level 4: Participants' Use of New Knowledge and Skills	How will we know if new skills are being practiced? What will be observed if effective implementation is occuring? What new knowledge are you putting into practice? What problems are you having with the implementation? What insights are you sharing with teachers and administrators?	Questionnaires Oral and written reflections Teacher portfolios Direct observation Video and audiotapes Interviews with participants and supervisors
Level 5: Student Learning Outcomes	How has the implementation affected student achievement? How has the implementation affected student attitudes? Have all students acquired the desired learning outcomes? Are learning outcomes the same for students from different ethnic backgrounds or gender? How are students doing on standardized tests?	Standardized test results Questionnaires Interviews with students, teachers, parents Student portfolios

Source: Adapted from T.R. Guskey. (2000). *Evaluating professional development.* Thousand Oaks, CA: Corwin Press.

allowing teachers to immerse themselves in subject matter and teaching methods, focus on curriculum and standards, and connect the content to classroom instruction (Mahon, 2003).

Returning to the question--How would we know if new ideas and information are being transferred to the workplace?--Guskey (2000) provides a useful framework for determining five potential levels of impact professional development. (The study of the SLC by Leithwood and colleagues (2003) is a particularly good illustration of a research design utilizing this framework.) These levels, representative reflective questions, and ways of gathering evaluation data are summarized in Table 2. The five levels of reflection, each one gaining greater depth about the impact of the professional development experience, are:

- *Participants' reactions* (level 1)--focuses on personal reactions to the professional development experience (asked at the conclusion of a session).
- *Participants' learning* (level 2)--examines perceptions of what was learned as a result of the experience (asked at the conclusion of a session).
- *Organization support and change* (level 3)--reveals how the school's current policies and practices support or inhibit the proposed goals of the experience (asked soon after the session).
- *Participants' use of new knowledge and skills* (level 4)--explores how the ideas generated from the experience are being applied (asked at different times throughout the school year).
- *Student learning outcomes* (level 5)--assesses how student learning has been affected by the experience (asked at different times throughout the school year).

As can be seen in Table 2, level 1 questions determine whether the participants enjoyed the professional development experience and believed it was worth their time. Using questionnaires and/or open-ended questions, most session organizers tend to obtain this level of information regarding participants' perceptions about the activities and delivery. One way to ascertain participants' level 1 reactions is to ask: (a) What are you glad we did today; and (b) What do you wish had happened? Another approach is to ask participants to discuss their responses to the prompts: "Learned? Affirmed? Challenged?" (York-Barr, Sommers, Ghere, & Montie, 2001). If organizers are interested in immediately determining what participants feel they have learned from the professional development experience (level 2), they can use similar written and verbal activities from Table 2. Many educators have become disillusioned by professional development since it tends to be forgotten once the workshop is finished. To keep professional development alive, teachers and administrators can commit to using the types of data-gathering activities and questions summarized in Table 2. Doing so is a proactive way to "drill deeper" to ascertain the effects of professional development. As data are gathered at levels 3, 4, and 5, action research can be used to determine ways in which practices are transferring into the school by examining how teachers and students have been affected by the school's professional development efforts (e.g., Sagor, 2000; Stringer, 1999).

Conclusions and Implications

One of the espoused benefits of educational leadership preparation programs is to develop graduate students' capabilities to make a difference in their school settings. Cohort-based programs, problem-based learning, intensive internships, and other learning structures and activities appear to hold great promise for leadership preparation; however, "the challenge of graduate educational leadership preparation programs lies in the capability of these programs to help aspiring

leaders transfer what they learn ... into their school settings" (Norris et al., 2002, p. 126). Perhaps the true legacy of leadership preparation programs is whether the knowledge and skills can be transported to school organizations, especially ones dedicated to improving the learning outcomes for all students.

While many scholars and practitioners espouse the need for school improvement, we lack substantive evidence of how these types of learning environments are created and maintained. There are, however, a variety of areas worth pursuing to understand how the transfer of leadership for school improvement occurs. On one hand, I have argued throughout this article that there are important task, learner, and context learning transfer activities that can influence leadership for school improvement (Marini and Genereux, 1995). On the other hand, I need to learn far more about the realities of school improvement and how aspiring, novice, and experienced school leaders can affect K-12 students' learning. Increasing our knowledge about school improvement is critical if we are to contribute to the debate about how school leaders, especially superintendents and principals, influence student performance (e.g., Petersen & Barnett, forthcoming).

Nevertheless, if educational leadership faculty and practitioners are to truly understand how to assist in transferring what is learned in preparation programs to the workplace, then I need much more clarity about what school improvement entails and how these efforts are affected by a variety of factors. Therefore, using guiding principles of change and innovation (e.g., Berman & McLaughlin, 1976; Hall & Hord, 1987, 2001; Rogers, 1983), I outline below several areas worth pursuing to better understand school improvement and its transference:

1. *Qualities of school improvement.* How is school improvement defined? How is school improvement measured and/or observed in practice? What aspects of school improvement are elusive and difficult to observe? How does school improvement evolve over time?
2. *Internal factors affecting school improvement transfer.* What features of the culture enhance and impede school improvement initiatives? How does the arrival and departure of new faculty and administrators affect school improvement? How do new members of the school become acculturated to existing school improvement efforts? Can school improvement exist without the support of school administrators?
3. *External factors affecting school improvement transfer.* How does the social, political, and economic climate affect school improvement? What local, state, and national policies support or erode school improvement? How does increased competition and high stakes testing influence school improvement?
4. *Impact of school improvement.* How does school improvement affect student learning? What concerns arise when establishing and sustaining school improvement initiatives? What experiences and dispositions are important for members of the school to embrace school improvement?

Answering these questions will assist university faculty and practitioners in learning more about the transference from preparation programs to the workplace. If public schools are to overcome many of the persistent problems they are experiencing, such as violence and crime, student and teacher apathy, and lack of connection with their communities, answers to these questions demand school leaders' attention. As our understanding of the complexities associated with transferring knowledge and skills from the classroom to the workplace increases, schools stand a far better chance of developing learning

environments where teachers, administrators, and community members collectively participate in continuous learning and improvement, resulting in instructional improvements and student learning (Fullan, 2000; Newmann & Wehlage, 1995; York-Barr et al, 2001). When educational leadership preparation successfully addresses transference issues, their relevance and credibility will rise, resulting in greater political and educational value--what better way to demonstrate our value to the profession and our legacy to school improvement?

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Transformative Adult Learning Strategies: Assessing the Impact on Pre-Service Administrators' Beliefs

Kathleen M. Brown

Introduction

The purpose of this article is to explore the effects of an alternative, transformative andragogy, i.e., the art and science of helping others to learn, designed to be responsive to the challenges of preparing educational leaders committed to social justice and equity. Three aspects of Mezirow's (1990) Transformative Learning Theory, which in this article are described as centrality of experience, critical reflection, and rational discourse, are interwoven with eight adult learning strategies intended to increase pre-service administrators' awareness, acknowledgement, and action.

While many agree that theory, research and practice should be intertwined to support the type of schooling (and society) that values rather than marginalizes, few scholars offer ground-breaking, pragmatic approaches for preparing and developing transformative leaders. As moral stewards in a global, diverse, and complex society, school leaders need to be invested in purpose-defining activities and in "reflective analysis and...active intervention" (Bates, 1984, p.268) as opposed to simply managing existing arrangements. In fact, Murphy (2001) has recently criticized traditional approaches as "bankrupt" and has recommended recasting preparation around the *purposes* of leadership. For such changes to happen, pre-service leaders need to open their minds (see Rokeach, 1960) and explore their self-understandings that are systematically embedded in mindsets, worldviews, values and experiences. According to Senge (1990), these can be seen as mental models; they are "deeply ingrained assumptions, generalizations, or even pictures and images that influence how we understand the world and how we take action" (p.8).

The strategies described herein are designed to help future leaders for social justice and equity develop as "transformative intellectuals who are both active, reflective scholars and practitioners, [who] engage in political interests that are emancipatory in nature" (Sleeter, 1993, p. ix). By being actively engaged in a number of assignments requiring the examination of ontological and epistemological assumptions, values and beliefs, context and experience, and competing worldviews, adult learners are better equipped to work with and guide others in translating their perspectives, perceptions, and goals into agendas for social change. The exploration of new understandings, the synthesis of new information, and the integration of these insights throughout

personal and professional spheres can lead aspiring educational leaders to a broader, more inclusive approach in addressing issues of student learning and equity.

Rationale

While convincing research suggests that beliefs are the best predictors of individual behavior and that educators' beliefs influence their perceptions, judgments, and practices, research also states that beliefs are hardy and highly resistant to change (Bandura, 1986; Dewey, 1933; Pajares, 1992; Rokeach, 1968). Understanding the nature of beliefs, attitudes, and values is essential to understanding future administrators' choices, decisions, and effectiveness regarding issues of diversity, social justice, and equity. Teaching for social justice, according to Ayers (1998), "arouses students, engages them in a quest to identify obstacles to their full humanity, to their freedom" (p. xvii), and ends in action to move against those obstacles. Preparing educational leaders to accept this challenge necessitates both a close examination of personal beliefs coupled with a critical analysis of professional behavior. It requires the problematization of those taken-for-granted practices that we no longer notice, unless we are explicitly asked to do so (Tripp, 1993). Given the relevance of beliefs and the difficulty involved in changing them, the results of this study should illuminate connections between leadership preparation experiences and student learning and help programs assess students' beliefs, evaluate strategies to effect beliefs, and monitor changes in beliefs.

From Dewey (1933) to Rokeach (1968) to Bandura (1986), scholars and researchers have long suggested that beliefs mediate knowledge, expectations, and actions. They claim that it is through reflection and challenge that individuals evaluate and adjust their thinking and turn from "what is subjectively reasonable for them to believe to what is objectively reasonable for them to believe" (Fenstermacher, 1979, p.167). According to Pajares (1993), "The process of accommodating new information and developing beliefs is thus gradual, one of taking initial steps, accepting and rejecting certain ideas, modifying existing beliefs systems, and finally accepting new ideas" (p.45).

Assessing beliefs in an effort to make them known and subject to critical analysis is an important initial step in the process. Because beliefs can change as a result of experience, it is critical for preparation programs to examine the impact of their strategies on pre-service leaders' attitudes, perceptions, and practices regarding issues of social justice, equity, and diversity. If personal beliefs can be positively influenced by courses dealing with diversity and with direct cross-cultural experiences, program planners should expose students to various meaningful cross-cultural experiences within and outside their coursework. If professional beliefs (and subsequent professional behaviors) are directly influenced by personal beliefs, it is critical that preparation program curricula address deeper issues related to diversity (i.e., the "isms" – racism, classism, sexism), multiculturalism, oppression, prejudice, and discriminatory practices (see Pohan & Aguilar, 2001).

Theoretical Framework: Transformative Learning Theory

The learner, the learning process, and the context of learning form the cornerstone of the field of adult education. Adult education takes place in a wide variety of situations and involves a set of activities or experiences engaged in by adults which leads to changes in thinking, values, and behavior. Knowles (1984), one of the most influential figures in the field of adult education, is best known for his work on the factors that distinguish pedagogy from andragogy. Although his assertions and claims of difference are the subject of considerable

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debate (see Davenport, 1993; Jarvis, 1987; Tennant, 1996), Knowles defined pedagogy as the art and science of teaching, and andragogy as the art and science of helping others to learn. For Knowles, andragogy was premised on at least four crucial assumptions about the characteristics of adult learners that are different from the assumptions about child learners. A fifth was added later (Knowles, 1984, p. 12).1 These are as follows:

1. Self-concept. As a person matures, self-concept moves from one of being a dependent personality toward one of being a self-directed human being.
2. Experience. As a person matures, a growing reservoir of experience accumulates that becomes an increasing resource for learning.
3. Readiness to learn. As a person matures, readiness to learn becomes oriented increasingly to the developmental tasks of social roles.
4. Orientation to learning. As a person matures, time perspective changes from one of postponed application of knowledge to immediacy of application, and accordingly orientation toward learning shifts from one of subject-centeredness to one of problem centeredness.
5. Motivation to learn. As a person matures, the motivation to learn is internal.

Mezirow (1991), relying heavily on adult learning theory and Habermas' (1984) communicative theory, moved "beyond andragogy" and proposed a theory of transformative learning "that can explain how adult learners make sense or meaning of their experiences, the nature of the structures that influence the way they construe experience, the dynamics involved in modifying meanings, and the way the structures of meanings themselves undergo changes when learners find them to be dysfunctional" (p. xii). Mezirow (1990) defined it as a process of reflection and action:

From this vantage point, adult education becomes the process of assisting those who are fulfilling adult roles to understand the meaning of their experience by participating more fully and freely in rational discourse to validate expressed ideas and to take action upon the resulting insights...Rational thought and action are the cardinal goals of adult education (p.354).

Mezirow saw the process of critical self-reflection as leading to a reformulation of an individual's "meaning perspective" (the assumptions that a person uses to interpret experiences). This reformulation, along with acting on the reformulation, is called *transformative learning*. The effort to facilitate transformative learning, according to Mezirow (1990) is called *emancipatory education*.

Central to transformative learning is the assertion: "Because we are all trapped by our own meaning perspectives (i.e., frames of reference generated by life experiences), we can never make interpretations of our own experience free from bias" (Mezirow, 1990, p.10). Transformative learning seeks to free the individual from the chains of bias through the process of perspective transformation. It is "the process of becoming critically aware of how and why our assumptions have come to constrain the way we perceive, understand, and feel about our world" (Mezirow, 1991, p.167). Transformative learning changes the way people see themselves and their world. It attempts to explain how their expectations, framed within cultural assumptions and presuppositions, directly influence the meaning they derive from their experiences. Three themes of Mezirow's (1990) theory are the centrality of experience, critical reflection, and rational discourse (see also Boyd, 1991; Cranton, 1994; Kegan, 1994).

As the founding father of experiential learning, Dewey (1938) reminded us that not only are experiences the key building blocks of learning, but action is an intrinsic part of the learning cycle; this implies learning by doing as well as a practical understanding of the world. It also implies that human beings create meanings out of their experiences and act, or try to act, in accord with those meanings. Building on the work of Dewey (1916, 1938) and Piaget (1968), Kolb's (1984) view of experiential learning represents a model by which individuals structure reality and adapt to the world. The learning cycle, through which most people proceed when engaged in learning, encompasses four steps: (a) concrete experience—being involved in a new experience; (b) reflective observation—observing others in an experience, or developing observations about our own experiences; (c) abstract conceptualization—creating concepts and theories to explain our observations; and (d) active experimentation—using the theories to solve problems and make decisions. Regardless of the model or the sequence of stages (see Jarvis, 1987), learning comes from experiencing things, and the way in which individuals define and solve problems becomes the central process of learning. Perspective transformation explains how the meaning structures that adults have acquired over a lifetime become transformed. Rather than simply accepting learners' experiences and using them as a resource, Mezirow encourages a critical examination of these experiences, of the assumptions that underlie them, and of the individual's interpretation of them.

Mezirow's second transformative learning theory construct, thinking contextually and reflecting critically, is embedded within the realm of developmental psychology and the constructs of logic, dialectical thinking, working intelligence, reflective judgment, post-formal reasoning, and epistemic cognition (Brookfield, 1991). The ideas of critical theory—particularly that of ideological critique—are central to critical reflection. In his earlier writings, Mezirow (1977, 1981) described a learning cycle in which a "disorienting dilemma" (i.e., a situation in which our views of reality do not match what we now encounter) is first experienced, followed by self-examination, the exploration of options, and learning through planning a new course of action to overcome the dilemma. Reflection is obviously a part of this cycle; it is the examination of the justification for one's beliefs. Critical reflection is the assessment of the validity of the presuppositions of one's meaning perspectives (Mezirow, 1990). Critical reflection, according to Brookfield (1995) focuses on three interrelated processes:

(a) the process by which adults question and then replace or reframe an assumption that up to that point has been uncritically accepted as representing commonsense wisdom; (b) the process through which adults take alternative perspectives on previously taken for granted ideas, actions, forms of reasoning and ideologies; and (c) the process by which adults come to recognize the hegemonic aspects of dominant cultural values...(p.2).

The purposes of critical reflection are to externalize and investigate power relationships and to uncover hegemonic assumptions. To the contemporary educational critic Giroux (1983): "[T]he ideological dimension that underlies all critical reflection is that it lays bare the historically and socially sedimented values at work in the construction of knowledge, social relations, and material practices...it situates critique within a radical notion of interest and social transformation" (pp. 154-155). As a result, emancipatory education becomes a means of fighting oppression and cultural constraints.

"Transformative learning is not a private affair involving information processing; it is interactive and intersubjective from start to finish" (Mezirow, 1990, p.364). Since it requires exposure to alternative realities, groups (or, in the case of most preparation programs, cohorts) can provide a "dialogic context" wherein individuals have the opportunity to share their social, political, and cultural history. Brookfield (1986) supports this notion and posits that "when adults teach and learn in one another's company, they find themselves engaged in a challenging, passionate, and creative activity" (p.1). Taylor (1998) adds that adults in interaction constitute a community of knowers as well as a community of learners. Freire (1970) also emphasized the importance of dialogue in which people analyze, evaluate, and express judgments, as this dialogue can lead to a recreation of the individuals involved in the process. Rational discourse then becomes a means for testing the validity of one's construction of meaning. It is the essential medium through which a more inclusive, discriminating, and integrative understanding of one's experiences is promoted and developed. Given this, participation in extended and repeated discourse about social justice and equity can provide unique opportunities for learner growth, transformation, and empowerment. According to Shields, Larocque, & Oberg (2002):

> As we struggle to understand how issues of race and ethnicity affect the educational experiences for all students, we must work to overcome our prejudices by listening carefully to those whose backgrounds, perspectives, and understandings differ from our own. We must examine popular assumptions as well as the politically correct stereotypes that educators often use to explain what is happening in today's multicultural society and its increasingly ethnically heterogeneous schools. Engaging in socially just leadership requires us to maintain an open conversation, to examine and reexamine our perceptions and those of others, constantly looking beneath the surface and seeking alternative explanations and ways of understanding (p.134).

Preparation Programs: The Context of Learning

An awareness of and openness to issues of diversity is an important prerequisite of administrators' ability to lead for social justice and equity. Culturally inclusive education is inseparably linked to struggles for social justice. Respect for diversity entails advocacy, solidarity, an awareness of societal structures of oppression, and critical social consciousness (Freire, 1973). The more critically conscious educational leaders become, the more attentive they become to redressing social injustices and developing enduring educational practices embodying equity. Critical social consciousness entails moving from simplistic, dualistic notions of social justice to more complex ones. It entails identifying societal power relationships of oppression and privilege and believing them transformable through resistant action. It necessitates the critical examination of personal and professional beliefs, attitudes, and values.

This study outlines clearly the need for professors to retool their curricular and instructional practices to address issues of power and privilege—to weave social justice into the fabric of educational leadership curriculum, pedagogy, programs, and policies. Andragogical shifts from faculty-centered to student-centered approaches that actively involve students in the learning process, eliminate student anonymity, and personalize instruction are needed for transformative learning to occur. McCarthy (1999) found that these recommendations are consistent with others who are encouraging the use of inductive, problem-based

strategies that are grounded in adult learning theory and the reality of schools (Bridges, 1992; Collet, 1989; Hallinger & McCary, 1991; Murphy, 1992; Shibles, 1988). While the strategies proposed in this article were randomly chosen and specifically focused on pre-service training, their applicability (along with other transformative learning strategies) to ongoing development is viewed as an important and necessary complement in supporting future leaders.

Transformative Learning Strategies

Encouraging the development of informed beliefs on critical educational issues first necessitates the identification and understanding of those beliefs. To foster such development, the related principal preparation literature supports traditional delivery methods for clinical experiences, internships, cohort groups, case studies, and problem-based learning. In this study, these strategies are endorsed in addition to some other, more transformative learning approaches including cultural autobiographies, life histories, diversity workshops, cross-cultural interviews, educational plunges, diversity presentations and panels, reflective analysis journals, and activist assignments at the micro, meso, and macro levels (see Brown, 2004).

The combination, sequence, and/or implementation of such strategies are not relevant in all adult education settings, nor are they stress-free. Because such issues can be volatile and frightening, transformative learning can actually pose threats to psychological security as it challenges comfortably established beliefs and values, including those that may be central to self-concept (Mezirow, 1990). Regardless of the strategies used, professional development needs to be carefully planned over a series of sessions, with adequate opportunities for debriefing, in a structured setting where people adhere to agreed-on guidelines for safety and confidentiality. Aware of the potential for surfacing conflict, professors should remember, "Conflict, if respected, is positively associated with creative breakthroughs under complex, turbulent conditions (Fullan, 1999, p.22).

For this type of work, an integration of social justice and equity issues throughout a range of courses is highly recommended. The trends in educational studies, as well as the social and academic goals of education, should be investigated and viewed from a variety of angles in several different courses so that a deeper understanding may be achieved. Pre-service administrators should be encouraged to ponder big picture, philosophical, legal, and ethical questions. What is the purpose of basic, K-12 schooling? Who is to be served by the educational system? How are the themes of "control" and "cultural domination" played out throughout the history of education in the United States? Are the themes of institutional, cultural, and personal oppression still relevant today? What are the roles and issues facing educational leaders in our schools and in our society? It is important to bridge theory and practice, to make connections between course material and the broader social context, to explain to pre-service administrators how they might take an active part in bringing about social change, and to validate and incorporate with course content adult learners' personal knowledge and experience. According to Daresh (2002), a leader's "personal formation," their integration of personal and professional knowledge, can provide a moral compass for navigating the complex landscape of practice. As such, transformative learning strategies require an active, sustained engagement in the subject matter and an openness of mind and heart.

Research Design: The Learners

In this study, qualitative research methods were used to assess the possible effects of transformative learning strategies on pre-service administrator's personal beliefs and future professional behaviors toward issues of justice in education. The strategies described are just one example of how one professor, the researcher and coordinator of the Master's in School Administration (MSA) program, constructed three of her courses to promote such an agenda of social action.

Forty graduate students of educational administration (two cohorts of pre-service administrators) participated in this study. (See Table 1 for demographic information). Both cohorts (23 and 17 respectively, for a total of 40 students, or n=40) were recently enrolled as full-time students in a two-year MSA program. According to Cook and Campbell (1979): "[C]ohorts are useful for experimental purposes because it is often reasonable to assume that a cohort differs only in minor ways from its contiguous cohorts" (p.127). Aside from a slight percentage difference in racial makeup, this was generally true for the participants of this study. A review of data collected from the past five years over ten cohorts indicated that the average MSA cohort at this particular institution consisted of 20 students, of which 60% were White and 40% male. The average student was 32 years old with eight years of teaching experience.

During their first year of full-time study in the MSA program, the 40 participants were enrolled in the required educational leadership course entitled, "The Social Context of Educational Leadership," a three credit hour course taught by the researcher. This course was specifically designed to challenge students to explore various constructs from numerous, diverse, changing perspectives. Throughout the semester, the students were actively engaged in the eight transformative adult learning activities described herein. Assignments requiring the synthesis of such information included the completion of a weekly reflective analysis journal (40 students x 10 entries each = 400+ journal entries). The journal was a means for identifying and clarifying thoughts, feelings, beliefs, perspectives, worldviews, challenges, hopes, and aspirations. It was viewed as an introspective tool for personal growth and critical self-reflection in connecting thought, feeling and action from the inside out and the outside in. As Lukinsky (1991) noted, "Keeping a journal may help adults break habitual modes of thinking and change life direction through reflective withdrawal and re-entry" (p.213).

During the second year of study, the same forty MSA students completed comprehensive, yearlong, full-time structured internships at different school sites. The cohorts met weekly for a corresponding, integrative, reflective seminar, a six credit hour course taught by the same researcher. Conducted in a seminar format at various locations in the field, this course was designed to help adult learners engage in reflective practice and apply internship experiences to current and future challenges of educational leaders. Throughout this experience, the study participants completed a weekly reflective analysis journal (40 students x 20 entries each = 800+ journal entries). Each reflection cycle contained approximately 500 words and followed the five steps outlined by Brown and Irby (1997)—select, describe, analyze, appraise, and transform. Reminded by Pajares (1993), that "the process of accommodating new information and developing beliefs is thus gradual, one of taking initial steps, accepting and rejecting certain ideas, modifying existing beliefs systems, and finally accepting new ideas" (p.45), students were routinely encouraged to engage in a critical examination of their experiences, of the assumptions underlying their experiences, and of their interpretations of those experiences.

The act of journal writing is a rigorous documentary tool that makes invisible thoughts visible (Janesick, 1999). The review of journal entries is an informative, unobtrusive data collection method rich in portraying the values and beliefs of participants. As such, data for this study

Table 1
Demographic Data for Participating Graduate Students

Category	Item	Count	Percent
Race/Ethnicity	• White	17	(43%)
	• Black	20	(50%)
	• Asian	1	(2%)
	• Hispanic	0	(0%)
	• Other	2	(5%)
Gender	• Male	13	(33%)
	• Female	27	(67%)
Age	• 26-30 years old	13	(33%)
	• 31-35 years old	6	(15%)
	• 36-40 years old	8	(20%)
	• 41-45 years old	6	(15%)
	• 46 and older	7	(17%)
Level of Teaching Experience	• Elementary	12	(30%)
	• Middle School	5	(13%)
	• High School	14	(35%)
	• Central Office	4	(10%)
	• Other	5	(12%)

n=40

were gathered from these journals. Through the lens of transformative learning theory, qualitative content analysis was used to analyze, describe, and interpret the more than twelve hundred entries. What did pre-service administrators learn and how did or didn't they apply this knowledge? Can an openness to issues of diversity be successfully taught and developed in adult learners during the process of preparing for the principalship? What role, if any, did the centrality of experience, critical reflection, and rational discourse play in promoting and developing more inclusive, discriminating, and integrative understandings of adults' experiences?

Analysis of the data involved repeated readings of all the journal entries. Aside from being a weekly requirement, students were given a lot of leeway regarding actual reflection content. They were simply asked to complete reflective analysis journals throughout the course of their graduate program as a way of charting personal reactions to class and course meetings, readings, discussions, activities and experiences. As a result, structural uniformity of responses was limited. Also, although study participants were encouraged to think contextually and reflect critically, actual responses ranged from short, superficial descriptions of very specific events to deep, highly analyzed scenarios. Of the 1,200 entries in the complete data set, only a very small sample of vignettes are actually included in this study. Reported learner responses specifically relate to the transformative learning activities described herein. They focus primarily on evidence of the impact of these andragogical strategies on adult learners' awareness, acknowledgment and action. A code (a number indicating the student's age, ethnicity, and gender) appears at the rear of each verbatim journal entry to identify the source.

Results: The Learning Process

For one to claim that transformational learning has occurred there must be evidence of change. Cranton (1992) argued for three kinds of change—change in assumptions, change in perspective, and change in behavior. Implicit in Cranton's transformational outcomes is a change in self. Boyd (1989) concurred, stating that "the process of perspective transformation results in a fundamental change in one's personality" (p.459). Results from the data analysis indicate that all 40 of the study participants did change in some form or fashion as a result of participating in the adult learning activities. While not all of the students' thinking, values and behaviors were transformed, every participant did find and express value in at least one of the eight strategies. By reflecting critically on their assumptions and beliefs and by completing the andragogical strategies described, many of the adult learners were able to adjust their "meaning schemes" and transform their perspectives. They enhanced their "emotional muscle" and began to appreciate their own agency.

Reminded by Pajares (1992) that "as a global construct, belief does not lend itself easily to empirical investigation" (p.308), the "kind," extent, and longevity of these changes are unknown. However, indications are that most students' awareness and acknowledgement of their beliefs, attitudes, and assumptions increased significantly. Data analysis actually includes over 40 verbatim journal entries from at least 24 of the 40 participants. During a two-year period, students wondered, questioned, and hesitated. They stretched themselves, pushed their boundaries, grew, and developed. Many of the learner responses were emotionally laden. At times, they were amazed, enthralled, awakened, and grateful. At other times, they were afraid, stressed, angry, and guilt-ridden. Some of the students described the strategies used as growth-inducing, perspective-shifting, and life-changing. And, while

certain experiences were meaningful to certain individuals for certain reasons, of the eight adult learning activities employed in this study, the educational plunges, diversity panels, and cross-cultural interviews seemed to have the biggest transformative impact on the majority of the students, perhaps because they were the most difficult.

Due to space limitations, this article reports only journal findings specific to these three strategies. First, the importance of Mezirow's (1990) centrality of experience is reiterated and then examined through students' experiences in educational plunges. Second, the impact of critical reflection is explored through students' exposure to and participation in diversity panels. And third, Mezirow's notion of rational discourse is considered through students' active engagement in cross-cultural interviews. An overview of each concept, a description of each andragogical strategy, and a summary of learner responses follows.

Centrality of Experience

If the field of educational administration is really serious about preparing leaders capable of being responsive to social justice and equity challenges, then the current models of preparation are not up to the task. Embedded within this section is an instructional approach that moves far beyond knowledge acquisition at the formal cognitive level. Developing leaders for social justice requires a deep-seeded commitment on the part of preparation programs. It also requires a fundamental rethinking of content, delivery, and assessment. Courses must be fashioned and infused with critically reflective curricula and methodologies which stimulate students to think beyond current behavioral and conceptual boundaries in order to study, research, and implement leadership practices that will fundamentally and holistically change schools in ways and in manners which are consistent with an equitable, inclusive vision. By participating in educational plunges, adult learners actively engage in experiential learning.

Educational Plunges

Description. The purpose of this assignment is to provide adult learners with an educational experience of cultures different from their own. Based on their own self-assessment regarding level of experience, comfort, awareness, and knowledge, students decide which activity would be most beneficial to them in terms of furthering their awareness. The goal is for adult learners to select an activity that will challenge them to move beyond their present level of comfort, knowledge, and awareness, and yet not be so uncomfortable or threatening that they are unable to be open to the "minority experience." This direct contact plunge involves a cross-cultural encounter "up close and personal." Students are instructed to visit an educational setting unlike any they've experienced (e.g., private, Catholic, charter, magnet, single-sex schools, religious institutions, training centers, literacy councils, ESL programs, prisons or tutoring services, poor urban or wealthy academies, Head Start to college level, traditional, alternative, vocational or technical, etc.). Criteria for a plunge are: (a) The majority of the people there are from the focal group; (b) Adult learners are on the educational turf of the focal group; (c) A type of experience students have never had before; (d) The plunge takes place after the course begins (no credit for past experience); (e) The plunge lasts at least one hour; (f) The Plunge pushes students' "comfort zone;" and (g) Students have face-to-face interaction with people from the focal group. In their follow-up reflection paper, adult learners describe the experience, their reasons for selecting the experience, their assumptions and biases about the focal community members and how they were challenged by this experience (if they were), their emotional response to the plunge (e.g., before,

during and after, such as fear, anxiety, surprise, shock, disturbed, comfort/discomfort, joy, elation), the value of the experience (e.g., lessons, understandings, changes), and the relationship of experience to specific class readings and discussions, including implications for them as educational leaders for social justice and equity.

Learner Response. Analysis of the journal entries revealed that most students were hesitant in the beginning and grateful in the end for the experience. While few in number, the following vignettes are representative of the larger sample:

An eye-opening day. I appreciated the assignment because it gave me an opportunity to go someplace I would not have gone otherwise (35WM).

Another adult learner added:

I'm really glad we were assigned this activity. I have always wondered what adult ESL classes look and feel like. This assignment gave me an excuse to go. Wow! I will never be the same as a result. My admiration for people who don't speak English has increased 100%. I will never look at them the same. This experience has given me some firsthand knowledge that I can share with others who are ignorant or prejudiced (38WF).

A third entry following a student's visit to an educational facility for severely handicapped children revealed the following:

Plunge is the right word for this experience. I was so tentative going in. My heart was pounding. After the initial shock, I was actually able to relax and quickly realized that kids are kids and I need to treat each of them with dignity and respect, regardless of race, creed, or disability (32BF).

Critical Reflection

Reflection is at the heart of transformative learning. The development of critical thinking and open-mindedness requires a critical stance toward established paradigms and an openness to alternative viewpoints. Dewey (1910) noted that "the essence of critical thinking is suspended judgment; and the essence of this suspense is inquiry" (p.74). Reflection, according to Mezirow (1991), is "the process of critically assessing the content, process or premise(s) of our efforts to interpret and give meaning to an experience" (p.104). According to Cranton (1992), reflection follows a logical progression from awareness and examination of assumptions through examination of sources and consequences of assumptions to questioning the validity of the assumptions themselves (critical reflection). In this section, exposure to diversity panels was the andragogical strategy used for raising consciousness, stimulating transformative learning, and developing future leaders for social justice, equity, and action. By learning how to learn, adult learners improve their ability to identify ontological and epistemological assumptions, to understand multiple perspectives, and to expand their "worldview." Through self-reflection, critical inquiry, and the completion of reflective analysis journals, students begin to question and modify previously taken-for-granted frames of reference.

Diversity Panels

Description. Together with others in the class who have chosen the same non-monolithic group to study in depth, adult learners conduct the class on a given day. Students are expected to assign and distribute additional readings so that they can present the history of that group's educational experience in the U.S. (including the circumstances that brought or made them inhabitants of the U.S.), and how they were treated. The main objective is to help class members understand how the group has been treated in this country and how the history lives

on and affects the present (e.g., philosophically, economically, politically, socially, and culturally). Adult learners' presentations include: (a) information regarding the values considered representative of the majority of people in that group; (b) a discussion of their schooling experiences; and (c) any other issues that they deem important (e.g., stereotypes, inequitable treatment, successful pedagogical strategies). As part of the class, students also have a one-hour panel presentation from at least three people from that group. Panel members introduce themselves, engage in a sharing of their educational experiences, and participate in an informal question and answer session with all members of the class. Cultural values, lessons taught, schooling experiences and misperceptions experienced are discussed, as well as suggestions in working more effectively with students from all cultures.

Learner Response. Findings indicated an increase in awareness and acknowledgment for most students as they reflected on what they heard, learned, and felt during the diversity panels. Representative insights included the following:

I know these presentations are very beneficial to my understanding of becoming "a needed change agent" but they surely cause me a lot of stress! Presenting these groups in isolation gives me a broader perspective on the same injustices going on today that have traveled through history with certain groups (41BF).

To a certain degree, the information that I heard was painful. History is becoming more and more insufferable. My ancestors did this damage to these people. The effect is still being felt today. I have a responsibility to help correct the situation. I need to research, read, dig for information in all aspects of other races to help understand how I will be able to make the greatest impact as an administrator (25WM).

The panel really had an impact on me today. Like Janeka, I too struggle between the Malcolm X and MLK Jr. response. I realized that her poise in handling the racist teacher accomplished a lot more than my knee-jerk anger would have. I must remember this often, especially as an administrator (34BM).

This last response is a good example of how one student tried to synthesize and integrate new insights throughout both his personal and professional spheres. He learned from the panelist, an African American female high school administrator, that redressing social injustices and developing enduring educational practices takes transformation of self and deed.

Rational Discourse

Rational discourse involves a commitment to extended and repeated conversations that evolve over time into a culture of careful listening and cautious openness to new perspectives, not shared understanding in the sense of consensus, but rather deeper and richer understandings of our own biases as well as where our colleagues are coming from on particular issues and how each of us constructs those issues differently. Educational psychologist Jerome Bruner (1988) suggested that people are able to process complex information much more easily when it comes in narrative form. Given this, participation in extended and repeated discourse about justice and equity can provide unique opportunities for learner growth, transformation and empowerment. According to Shields et al. (2002):

As we struggle to understand how issues of race and ethnicity affect the educational experiences for all students, we must work to overcome our prejudices by listening carefully to those whose backgrounds, perspectives, and understandings differ from our

own. We must examine popular assumptions as well as the politically correct stereotypes that educators often use to explain what is happening in today's multicultural society and its increasingly ethnically heterogeneous schools. Engaging in socially just leadership requires us to maintain an open conversation, to examine and reexamine our perceptions and those of others, constantly looking beneath the surface and seeking alternative explanations and ways of understanding (p.134).

Rational discourse validates meaning by assessing reasons. It involves weighing the supporting evidence, examining alternative perspectives, and critically assessing assumptions. Discourse is the forum in which "finding one's voice" becomes a prerequisite for full free participation. According to Senge (1990):

> The discipline of mental models starts with turning the mirror inward; learning to unearth our internal pictures of the world, to bring them to the surface and hold them rigorously to scrutiny. It also includes the ability to carry on 'learningful' conversations that balance inquiry and advocacy, where people expose their own thinking effectively and make that thinking open to the influence of others. (p.9)

Establishing a dialogic context, however, is complicated, difficult, and frightening for students and professors alike. Unlike conversation in which genial cooperation prevails, dialogue actually aims at disequilibrium in which "each argument evokes a counterargument that pushes itself beyond the other and pushes the other beyond itself" (Lipman, 1991, p.232). Dialogue focuses more on inquiry and increasing understanding and tends to be more exploratory and questioning than conversation. Acknowledgement is a necessary step in linking awareness to action. Through rational discourse, awareness is validated, refined, and focused, and motives leading to social action are cultivated.

Rational discourse can be stimulated through an array of techniques, including class discussions, "provocative declaratives" (see Vavrus, 2002), critical incidents (see Flanagan, 1954, Tripp, 1993), controversial readings, and/or structured group activities. Believing that no curriculum is neutral, Freire's (1970) pedagogy gives priority to the use of dialogue. The use of questions and a dialogic teaching approach gives the learners more control over their own experience; it allows them to become the teachers of their own experience and culture and to apply those insights to their own leadership practice. Students questioned:

> How will I make the changes happen that I know need to occur? (38WF)

> Do my ideas represent the school's populations, even those who are not in the majority? (32BF)

> Will all the silenced voices be heard? How in the world will I advocate for everyone that needs it? Will I remember and apply what I've learned? Will I be bold enough?" (44BM)

> How do I totally erase the guilt and move forward? (25WM).

Questions such as these sprinkled the pages of the students' journals. In moving from increased awareness through experiential learning and critical reflection to increased action through rationale discourse, they reflected on their ability to be change agents.

Action, according to Cranton (1992), is the litmus test of transformative learning; it is evidence of changed perspectives. By increasing their tactical awareness and acknowledgement of what "is" and what "ought to be," adult learners build a confidence and ability to work for collective change. Analysis of the data revealed an increase in their willingness to engage in and facilitate critical, constructive inquiry regarding issues of social justice and equity. Through rational discourse and the completion of cross-cultural interviews, students were able to realize their own agency and increase their commitment and ability to validate the cultural, intellectual, and emotional identities of people from underrepresented groups.

Cross-Cultural Interviews

Description. This assignment involves a one-on-one encounter with an individual who is different from the adult learner in ethnicity/race. The purpose is to help students develop a greater understanding of alternative worldviews, to increase their comfort in discussing differences and similarities, and to better appreciate the educational experiences of someone from a different background. Adult learners select an individual who is 18 years of age or older, who attended school in the United States, who is different from themselves in ethnicity/race, and someone who will push their comfort zone (sample questions provided by the instructor query interviewees' cultural values, importance of education, experiences of racism, etc.). The face-to-face interviews are conducted in a mutually agreed upon safe, private place. In an effort to build rapport, adult learners are instructed to engage in some self-disclosure so that the interview is not totally one-sided. For example, students might talk about what they have been learning about themselves in class, as well as any new understandings they have gained about oppression and discrimination. In their follow-up reflection paper, students describe the experience, give an overview of the interviewee (e.g., ethnicity/race, family background, cultural values, salient attitudes/beliefs/experiences, racial identity development, schooling details, etc.), and summarize the central issues concerning the interviewee's educational experience.

Learner Response. When describing their emotional response to the cross-cultural interview, along with the insights/lessons gained, a number of students described it as:

> A tough but quite valuable assignment (25WM).

Others added:

> It pushed my boundaries, forced me to go beyond what I'm familiar with, helped me see my blind spots, tested the amount of fortitude that I had within myself, and made me have to stretch myself so thin I thought I was going to have to go into therapy just to debrief (28WF).

Another described the experiential value as:

> Loved it and hated it. Loved it because it forced me to recognize my own biases, misconceptions, and ignorance. Hated it for the same reason. Definitely the most memorable (and probably the most valuable) experience this entire semester (30WM).

Concluding Discussion: Leaner Praxis

To foster transformational learning and a critical examination of beliefs, educators need to be active facilitators and colearners who go beyond simply meeting the expressed needs of the learner. Through a wide array of roles, methods, and techniques, they need to take on the responsibility for growth by questioning the learner's expectations, beliefs, and actions. As shown here, transformative learning is a process of experiential learning, critical self-reflection, and rationale discourse that can be stimulated by people, events, or changes in context which challenge the learner's basic assumptions of the world. Transformative learning leads to a new way of seeing. "Values are not necessarily changed, but are examined—their source is identified, and they are

accepted and justified or revised or possibly rejected" (Cranton, 1992, p.146). This in turn leads to some kind of action. Dunn (1987) suggested that there is an ontological link between personal beliefs and public behaviors--that the true test of connection between personal understandings and individual and/or collective public responsibility is the degree to which any of the talk we engage in about social justice prompts us to a different kind of activism.

Praxis is a Greek word that means moving back and forth in a critical way between reflecting and acting on the world. Because reflection alone does not produce change, Freire (1970) advocated for the necessity of action based on reflection. Learner praxis involves inductive and deductive forms of reasoning. It also involves dialogue as social process with the objective of "dismantling oppressive structures and mechanisms prevalent both in education and society" (Freire & Macedo, 1995, p.383). As stated earlier, a number of scholars have argued that we need educators who enter and remain in education not to carry on business as usual but to work for social change and social justice (Ayers, Hunt, & Quinn, 1998; Cochran-Smith, 1998; Oakes & Lipton, 1999). Unfortunately, Rapp, Silent X, and Silent Y (2001) found that 90% of educational leaders, both practitioners and professors, remained wedded to what Scott and Hart (1979) call technical drifting—a commitment to emphasize and act upon the technical components of one's work above the moral. Technical drifters fail to validate the cultural, intellectual, and emotional identities of people from underrepresented groups, they avoid situations where their values (e.g., sexist, racist, class, generational, religious), leadership styles, and professional goals can be challenged and dismantled, and they use their positions of power to formally and informally reaffirm their own professional choices.

Given this disturbing reality, courageous, transformative leadership is needed. According to Mezirow (1990), "Every adult educator has the responsibility for fostering critical self-reflection and helping learners plan to take action" (p.357). Increasing adult learner awareness of how we are all agents of change as educators is a vital part of development. We need to help future leaders set and implement goals in terms of behaviors, boundaries, alternatives, and consequences. In learning about themselves and others, adults in our principal preparation programs need to be invited to think independently, to observe, to experience, to reflect, to learn, and to dialogue. If they have engaged in experiential learning, critical reflection, and rational discourse regarding their underlying assumptions about practice, the next logical step is to integrate these assumptions into an informed theory of practice (i.e., social action). Future research needs to document the "kind," extent, and longevity of these changes, as well as the barriers and supports needed for sustained action. What does leadership for social justice actually look like, and how can it be fostered (initially, as well as through on-going development)?

Educational activists need to be attuned to the complexities of changing demographics and must be willing "to engage in and facilitate critical and constructive inquiry" (Sirontnik & Kimball, 1996, p.187). In an effort to develop the risk-taking, political, and human relations skills necessary to do this, leadership preparation must expose future administrators to critical social theory and its influence on the purposes of schooling. This recommendation is consistent with Astin's (1993) finding that on campuses where faculty stated that a goal of their institution was to promote student social activism, more positive change was seen in student interest and valuing of activism.

In the forward of Capper's *Educational Administration in a Pluralistic Society*, Sleeter (1993) draws on Giroux's (1988) description of the type of administrator she would like to see advocating for equality and social justice in schools: "These are transformative intellectuals who are both active, reflective scholars and practitioners," [who] engage in political interests that are emancipatory in nature" (p. ix). The strategies described herein can help future leaders develop such skills. Reminded by Freire (1998) that "It is true that education is not the ultimate lever for social transformation, but without it transformation cannot occur" (p.37), leadership preparation has a responsibility to foster an emancipatory ethos by implementing a transformative framework and andragogy. The goal of full and equal participation of all groups in a society that is mutually shaped to meet their needs cannot be attained without it.

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Endnote

[1] Please note that the male pronouns "he" and "his" have been removed from these five assumptions in order to eliminate gender bias in the text.

Learning Outcomes of an Educational Leadership Cohort Program

Pamela D. Tucker, Cheryl B. Henig, and Michael J. Salmonowicz

Over the past three decades, demands on public schools have increased dramatically with a direct impact on the expectations of principals. Not only are principals called upon by constituents to address and respond to the need for increased accountability and higher academic standards, but they are also challenged to meet the special needs of exceptional students and maintain safe and secure learning environments (Bottoms & O'Neill, 2001; Institute for Educational Leadership, 2000). The central role of the principal in school improvement was established in the effective schools research of the 1970s and 1980s (Edmonds, 1979; Frederickson & Edmonds, 1979), which substantiated the importance of principals' contributions to instructional effectiveness. More recent research (Hallinger & Heck, 1998; Leithwood & Jantzi, 1999) has continued to support the critical role of the principal, and the current context of accountability creates an even greater urgency for highly effective school leadership (Duke, Grogan, Tucker, & Heinecke, 2003).

The evidence that principals make a substantial difference in improving schools and increasing student learning has been described repeatedly in case studies of schools that succeed despite challenging demographics (Educational Research Service, 2000; The Charles A. Dana Center, 2000). A recently released meta-analysis by the Mid-continent Research for Education and Learning (McREL) research lab has found a "substantial relationship between leadership and student achievement" (Waters, Marzano, & McNulty, 2003, p. 3), amounting to an average effect size of .25. They reported that this translates into a difference of ten percentile points in mean student achievement based on effective school leadership practices.

Policymakers have recognized this key role of school principals in facilitating school reform efforts and have generated numerous reports recommending better recruitment, pre-service preparation, and in-service professional development to enhance both the quality and quantity of promising school leaders (Bottoms & O'Neill, 2001; Institute for Educational Leadership, 2000; National Association of State Boards of Education, 1999; National Staff Development Council, 2001). Preparation programs, in particular, have come under attack for being irrelevant and outdated in both the curriculum and how the curriculum is delivered (Bottoms & O'Neill, 2001; Levine, 2005; Murphy,

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2002; Thomas B. Fordham Foundation, 2003). Recommendations for changes in curriculum include greater rigor and coherence, but more specifically a heavier emphasis on curriculum and instruction, understanding and use of data to improve instruction, communication skills, and the change process. In addition, there is a push for greater flexibility in program delivery and more integrated field-based experiences to anchor theory and research in practice (Bottoms & O'Neill, 2001). At the national level, efforts like the National Commission on the Advancement of Educational Leadership Preparation reflect both recognition of the problems in traditional preparation programs and an effort to bring about broad-based change (Young & Petersen, 2002).

Against this backdrop of mushrooming expectations for principals and a critical assessment of the value offered by university-based preparation programs (Haller, Brent, & McNamara, 1997), school districts across the country are experiencing shortages of high quality administrative candidates in the midst of "baby boom" principal retirements (Fenwick, 2000). Virginia school districts, like districts across the country, have enlisted the assistance of university educational leadership faculty to work in concert with them to create preparation programs to develop talent from within their organizations to meet current and future administrator needs.

As described by Grogan & Roberson (2002), a customized cohort program was developed by university professors and superintendents from three large school systems in an effort to meet the shortage problem and create a more dynamic and germane program. Together they jointly planned course content with two of the superintendents teaching courses within the program and other school leaders providing a variety of invited presentations. The goal was to create a highly selective and yet richly diverse learning environment for "an intact community of learners" (Browne-Ferrigno & Muth, 2003, p. 622). Based on the input of superintendents, courses were more focused on issues of accountability, student achievement, data-driven decisionmaking, and diversity. Internships were made an integral part of the leadership academies run by each of the school districts. Expertise within the three school districts was utilized to complement the more research-based and theoretical orientation of the university faculty and thus highlight the intersection of practice and theory. The synergy of this cooperative program was viewed as a promising approach to ensuring program relevancy and responsiveness to the field (Grogan & Roberson, 2002).

Cohorts as a Tool for Leadership Preparation

While cohorts typically have been undertaken as an efficient means of program delivery (Browne-Ferrigno & Muth, 2003), they have been found to have unexpectedly positive outcomes for students which has prompted research in this area during the past ten years. The research has supported the affective and cognitive benefits of cohorts in leadership preparation (Browne-Ferrigno, 2001; Herbert & Reynolds, 1998; Scribner & Donaldson, 2001; Yerkes, Basom, Barnett, & Norris, 1995), and many programs now use them to enhance program effectiveness as well as efficiency (Barnett, Basom, Yerkes, & Norris, 2000). Browne-Ferrigno and Muth (2003) have noted numerous limitations of the existing research, however, including limited empirical investigations, typically small sample sizes, the self-reported nature of data collection, and the lack of evidence on the long-term effects on professional practice. In addition, Scribner and Donaldson (2001) noted that research has focused on the inputs and outputs of cohorts as if they were "black boxes" instead of complex social entities that have

noteworthy effects on learning that demand further study and analysis to "reap the full instructional and learning benefits" (Donaldson & Scribner, 2003, p. 663).

Despite these limitations in the research, there is a striking consistency in the reports by students of positive program outcomes. Cohorts seem to "foster strong interpersonal relationships, create caring learning climates, and support students' sense of competence and well-being" (Browne-Ferrigno & Muth, 2003, p. 623). Students have also cited as benefits enhanced knowledge and understanding (Norris, Barnett, Basom, & Yerkes, 1997) and improved academic performance (Hill, 1995). Hebert and Reynolds (1998) found greater learning by students in cohorts as compared to those in typical self-determined programs. These outcomes are to be expected given that cohort designs take into account adults' desire to "grow and learn with others" and "count on others as resources in their learning" (Basom, 2002, p. 33).

Rationale for the Examination of Learning Outcomes for a Cohort Program

The purpose of this study was twofold. The immediate objective was to collect survey data from students, both before and after program delivery, to assess the effectiveness of the field-responsive curriculum developed for this cohort. The second purpose was to pilot an approach to program evaluation on a tightly controlled basis to begin the process of documenting "direct learning outcomes" (Orr, 2003). For both purposes, the survey solicited detailed information from students regarding the aspects of school leadership that they viewed as most important to their development and the extent to which they thought they were prepared to fulfill these functions.

Cohort Assessment

As noted above, cohort programs have notable benefits. Students and faculty members have reported support, friendship, and collaboration as significant components of the cohort experience (Barnett et al., 2000; Milstein, 1993; Twale & Kochan, 2000) that lead to the creation of professional learning communities for students during their programs and beyond as they enter the profession (Barnett & Muse, 1993; Milstein, 1993; Hill, 1995). Drawbacks have also been identified, including limited flexibility in course sequence (Barnett, Basom, Yerkes, & Norris, 2000; Teitel, 1997), balancing coursework with full-time employment (Barnett, Basom, Yerkes, & Norris, 2000), poor group dynamics (Barnett, Basom, Yerkes, & Norris, 2000; Teitel, 1997), and tension in courses that include non-cohort students (Hill, 1995; Teitel, 1997).

Much of the research published prior to 2000 focused primarily on faculty perceptions of the value of cohort programs with little data collected from students on the advantages and disadvantages, both in terms of content and processes (Barnett et al., 2000). To address the absence of student voices, this study was designed to focus heavily on the content of the program and attempted to assess changes in students' perceptions of their own preparation to undertake widely recognized administrative tasks (DiPaola & Tschannen-Moran, 2001). Likewise, other studies since 2000 have attended to student perceptions of cohort programs (e.g., Scribner & Donaldson, 2001; Twale & Kochan, 2000; Whitaker, King, & Vogel, 2004). Specifically, Scribner and Donaldson (2001) have addressed group dynamics and the types of learning that occur within a cohort.

Pilot for Program Evaluation

A second, but related, goal was to gather evidence as to whether the program enhanced the skills of prospective principals to lead change in schools and increase student learning (Haller, Brent, & McNamara, 1997). A recent publication by the organization representing university-based preparation programs, the University Council for Educational Administration (UCEA), cited nine studies dealing with the assessment of educational leadership programs (Murphy & Vriesenga, 2004); eight of the studies used self-evaluation as the sole method of program assessment, while one used a combination of self-evaluation and "field application projects" (p. 80). To date, the majority of educational administration program evaluation has been conducted using self-evaluations of overall program effectiveness from either students or faculty (McCarthy, 1999). Though a popular method of assessment, it has been observed that "testimonials are not sufficient to conclude that particular preparation program features have merit" (McCarthy, 1999, p. 133). This criticism should be considered, however, in the context that "no evaluation design has been created that gives us definitive answers about the effects of leadership preparation" (Chenoweth, Carr, & Ruhl, 2002, p. 27).

While a professional dialogue has begun about how to improve the evaluation of preparation programs (Orr, 2003), there are major measurement and methodological issues to resolve. Questions abound as to the appropriate impact measures (e.g., learning outcomes, leadership effectiveness), data collection strategies (e.g., surveys, observations, student achievement data), data sources (e.g., participants, superiors), and so on (Orr, 2003). The gold standard for evaluation of preparation programs would be tangible evidence of school improvement where graduates serve as leaders; however, groundwork must be laid first in terms of more basic information about program content and processes (Barnett et al., 2000). The methodology utilized in this study was intended to provide a baseline measure of functional skill development (one type of learning outcome) by using pre- and post-program measures of self-reported levels of preparation to complete administrative tasks. Changes in individual perceptions of administrative preparation were analyzed for statistically significant growth after post-program data were received.

Data Sources and Methods

Participants

All 27 students in the cohort program were invited to respond to the program surveys. Twenty-one students responded to the pre-program survey, and 19 responded to the post-program survey. Of the 19 respondents who provided information on the pre- and post-program surveys, all were teachers at the beginning of the program, seven (37%) were male and 12 (63%) were female. Sixteen (84%) were aged 24-44 years old; three (16%) were African-American and 16 (84%) were Caucasian. For most of the participants, their highest degree (74%) was a bachelor's degree prior to beginning the program. Close to half of the students (42%) had 9 or more years of experience with 2 having more than 20 years of experience. More than one-third (37%) planned to pursue an assistant principalship in the next five years while others planned to pursue principalships at various levels or central office positions.

While we acknowledge the limitations of self-evaluation as a method of assessment as noted by Murphy & Vriesenga (2004), we have sought to improve upon past self-evaluation instruments in four ways. First, we used Virginia licensure standards as a basis for our survey questions. The licensure standards are closely aligned with the Interstate School Leaders Licensure Consortium (ISLLC) standards, which were adopted by Virginia in 1996. Second, we took a value-added approach, using our instrument to measure both pre- and post-program perceptions. Third, our survey gathered specific, detailed information in a structured manner. Administrative duties were categorized into four subgroups and then separated into specific tasks; within this framework, participants were asked to rate the importance of the task and their level of preparation for the tasks. Fourth, our survey was focused on specific learning outcomes, not global benefits or drawbacks of the program.

Using survey methodology, this study explored the perceptions of students in the 18-month cohort program at the beginning and end of the preparation program regarding: (a) the importance of key administrative tasks; (b) their preparation to fulfill key administrative tasks; and (c) the advantages and disadvantages of a cohort delivery format. A slightly modified version was used for collecting data at the end of the program. Survey items were based on the work of DiPaola and Tschannen-Moran (2001) in a statewide study of Virginia principals. One section of their survey focused on the administrative functions principals viewed as significant to their work and their perceived professional development needs in these areas. A slightly modified list of items was used to assess our cohort participants' perceptions of important aspects of the principalship and how prepared they perceived themselves to be in fulfilling these tasks.

Forty-four items were rated for importance using a 3-point Likert scale of "not important" (1) to "highly important" (3), and the same items were rated for level of preparation using a 4-point Likert scale of "none" (0) to "high" (3). The 44 items were grouped into four clusters: (a) Planning and Instructional Leadership; (b) Organizational Management; (c) Communication; and (d) Professionalism. In addition to basic demographic questions, three open-ended questions were asked about cohort participants' goals as future principals and the advantages and disadvantages of the cohort delivery model.

Survey data are considered an excellent means to "produce statistics – that is quantitative or numerical descriptions of some aspects of the study population" (Fowler, 1993, p. 1). In this case, survey data elucidated student perceptions on the learning outcomes of the cohort preparation program. Our response rate was 70% with 19 of the 27 participants responding to both the pre- and post-program surveys. Given that a 60% response rate is considered satisfactory for generalizability (Glatthorn, 1998), we are fairly confident of the results.

Data Analysis

Two types of analyses were used to answer the primary research questions of perceived importance of administrative tasks and level of preparation due to program participation. Descriptive statistics were used to summarize students' perceptions of the importance of administrative tasks before and after program participation, and their perceived levels of preparation to perform the administrative tasks. These perceptions were compared to those of seated principals. Second, to characterize the changes in students' perceived levels of administrative preparation, paired t-tests were used to identify statistically significant differences between pre- and post-program responses.

For perceptual data on the importance of administrative tasks, the percentage of responses in each category ("not important," "important," and "highly important") was calculated. The ten tasks rated as highly important by cohort participants were identified and compared to the percentage of seated principals who rated the same tasks as highly important. Analogous percentages of responses in post-program data were compared to the pre-program data to determine if participant perceptions of importance changed at the end of the program.

In order to determine if there were statistically significant differences in perceived preparation levels before and after the program, paired t-tests were performed for each of the four categories of administrative tasks. The paired t-test is the preferred analysis when posttest scores are compared with pretest scores (Hopkins, Hopkins, & Glass, 1997). Pre-program and post-program subscores for each of the four clusters--Planning and Instructional Leadership" (survey items 1-18), Organizational Management (survey items 19-32), Communication (survey items 33-40), and Professionalism (survey items 41-44)--were compared using paired t-tests. SPSS and Excel computer programs were utilized for statistical analyses. Statistical significance was determined at the p < .05 level. Open-ended responses regarding the cohort delivery format were analyzed for common themes based on student perceptions before and after program delivery.

Findings

The findings are organized by perceptions of participants at the beginning and end of the cohort experience in terms of the importance of various administrative functions and the participants' preparation to perform them. The responses of cohort participants are contrasted with those of seated principals at both the beginning and end of the program. Lastly, comparisons of pre- and post-program perceptions of preparation are made in the last section of the findings.

Beginning of the Program

At the beginning of the program, a majority of cohort participants (N = 21) perceived 29 of the 44 (66%) administrative functions as "highly important" in the survey results and demonstrated little ability to differentiate between "important" and "highly important." Administrative tasks receiving the largest number of "highly important" ratings were: (a) data-driven decisionmaking (Mean = 2.90); (b) dealing with child abuse and neglect (Mean = 2.86); and (c) networking and collaborating with peers (Mean = 2.86). Table 1 lists the ten administrative tasks that were rated as "highly important" by the largest percentage of cohort participants.

These results differ markedly from those of a similar study conducted in 2001 with seated principals in Virginia (DiPaola & Tschannen-Moran, 2001). Seated principals identified as the three top ranked administrative tasks: (a) student achievement on standardized tests; (b) curriculum alignment with state standards; and (c) effective use of instructional time. In addition, only 4 out of the 44 (9%) administrative functions were rated as "highly important" by a majority of the seated principals, indicating a greater ability to better distinguish levels of importance.

A majority of cohort participants reported that they had "average" to "high" preparation to perform 38 of the 44 (86%) administrative tasks listed in the survey. Table 2 summarizes the level of preparation that cohort participants reported for the 10 administrative tasks that were rated by the most participants as "highly important." Given that students were just beginning their preparation program, it was assumed that they felt prepared for these tasks based on their teaching experiences, as exemplified by the high ratings in the areas of

Table 1

Percentage of Cohort Participants Who Rated These Administrative Tasks as the Top Ten Highly Important Tasks at the Beginning of the Program Compared to Sitting Principals

Administrative Tasks	Percentage of Cohort Participants Who Rated Item Highly Important (%)	Percentage of Principals Who Rated Item Highly Important (%)
Data driven decision making	90.5 (Mean = 2.90)	44.0
Networking and collaborating with peers	90.5 (Mean = 2.86)	35.0
Dealing with child abuse and neglect	90.5 (Mean = 2.86)	23.0
Managing stress	85.0 (Mean = 2.85)	36.0
Building an effective administration team	81.0 (Mean = 2.81)	36.0
Enhancing my leadership skills	80.0 (Mean = 2.85)	35.0
Improving staff morale	76.2 (Mean = 2.76)	45.0
Budgeting and resource allocation	76.2 (Mean = 2.76)	26.0
Working with families	76.2 (Mean = 0.86)	43.0
Curriculum alignment with Standards of Learning	76.2 (Mean = 2.76)	58.0

N varied from 19 to 21.

curriculum alignment, networking and collaborating with peers, and working with families.

Although cohort participants reported strong levels of preparation, a "high" level of preparation was reported by a majority of the cohort in only one area out of the 44, "working with families" (Mean = 2.48). It could be surmised that they have gained extensive experience in this area based on their years of teaching in the classroom. Other reported areas of moderate preparation, "curriculum alignment with SOL" (Mean = 2.33) and "networking and collaborating with peers" (Mean = 2.30), likewise reflected activities that are expected of classroom teachers as well as school administrators.

Open-ended questions about the cohort program suggested that students were pleased with the program's convenience in terms of location and schedule, collegiality and close relationships, and the relevance of course content and experiences. Almost every respondent commented on the personal relationships that supported the learning experience. This finding was consistent with multiple studies on cohort groups (Barnett, Basom, Yerkes, & Norris, 2000; Cordeiro, Krueger, Parks, Restine, & Wilson, 1993; Hill, 1995; Twale & Kochan, 2000). The involvement of key educational leaders from each of their school systems in the classes and the opportunity to network with other future school leaders from neighboring districts were also viewed as advantages of how the program was delivered. The primary concerns

of the cohort participants were the heavy course requirements, the struggle to balance family, work and courses, and the infrequent contact with professors due to once-a-month weekend courses.

End of the Program

At the end of the program, a majority of responding cohort participants (N = 19) perceived 39 of the 44 (89%) administrative functions as "highly important" in the survey results. Administrative tasks receiving the largest number of "highly important" ratings were: (a) data-driven decision making" (Mean = 3.00); (b) student achievement on standardized tests/Standard of Learning (Mean = 2.89); (c) building an effective administrative team (Mean = 2.89); (d) "teacher evaluation to improve instruction" (Mean = 2.89); and (e) managing stress (Mean = 2.89). Table 3 lists the ten administrative tasks that were rated by the most cohort participants as "highly important." Four of these items overlapped with those rated by the seated principals: (a) student achievement on standardized tests/Standards of Learning; (b) "standardized test analysis; (c) special educational law and implementation; and (d) data-driven decisionmaking. While the perceptions of participants at the end of the program are more consistent with those of seated principals in the state (DiPaola & Tschannen-Moran, 2001), there remained substantial differences. Cohort participants viewed even more of the administrative functions as "highly important" and

Table 2

**Percentage of Cohort Participants Who Reported Indicated Levels of Preparation to Fulfill
the Administrative Tasks Ranked as Highly Important at the Beginning of the Program**

Administrative Tasks	Level of Preparation (%)			
	None	Low	Average	High
Data driven decision making (Mean = 1.86)	4.8	23.8	52.4	19.0
Networking and collaborating with peers (Mean = 2.30)	0.0	10.0	45.0	45.0
Dealing with child abuse and neglect (Mean = 1.33)	19.0	33.3	38.1	9.5
Managing stress (Mean = 1.90)	5.0	20.0	55.0	20.0
Building an effective administration team (Mean = 1.62)	14.3	23.8	47.6	14.3
Enhancing my leadership skills (Mean = 2.30)	0.0	5.0	60.0	35.0
Improving staff morale (Mean = 1.95)	9.5	19.0	38.1	33.3
Budgeting and resource allocation (Mean = 1.71)	14.3	28.6	38.1	19.0
Working with families (Mean = 2.48)	0.0	19.0	19.0	61.9
Curriculum alignment with Standards of Learning (Mean = 2.33)	4.8	0.0	52.4	42.9

N varied from 19 to 21.

thus, did not improve in their ability to differentiate the importance level of various tasks.

A majority of cohort participants reported a "high" level of preparation to perform 6 of the top 10 administrative tasks they indicated were "highly important" at the end of the program, as compared to a "high" level of preparation to perform only 1 of the top 10 most important administrative tasks at the beginning of the program. Table 4 summarizes the level of preparation that cohort participants reported for the 10 administrative tasks that were rated by the most participants as "highly important." Overall, a majority of students rated themselves as having a "high" level of preparation to perform 15 administrative tasks as compared to a "high" level of preparation to perform only 3 tasks at the beginning of the program.

At the end of the program, students perceived themselves as having a "high" level of preparation in 34% of the administrative tasks. Specifically, they reported a "high" level of preparation as follows:

- 44% of the tasks under Planning and Instructional Leadership (Mean = 2.47);
- 7% of the tasks under Organizational Management (Mean = 2.28);
- 38% of the tasks under "Communication" (Mean = 2.43);
- 75% of the tasks under "Professionalism" (Mean = 2.58).

Even more impressive was the finding that a majority of cohort participants reported "high" levels of preparation in 7 out of the 10 (70%) tasks rated as most important by seated principals in the DiPaola and Tschannen-Moran study (2001).

Open-ended questions were asked again at the end of the program about the benefits and drawbacks of the cohort format, and students most frequently cited the program design, location of course delivery and collegial relationships as benefits. While instructors and quality of program garnered some attention, convenience, flexibility, and network-ing possibilities seemed to be more important. The concerns of the cohort participants voiced at the beginning of the program diminished over time, but some participants continued to have difficulty balancing work, school, and home lives. Their advice to future participants was to "be prepared for a lot of hard work" and "budget your time."

In addition to the descriptive statistics and qualitative information provided above, paired t-tests were used to compare the pre- and post-program subscores for preparation in the tasks listed under Planning and Instructional Leadership, Organizational Management, Communication, and Professionalism. Results were statistically significant in all four comparisons as shown in Table 5.

Conclusions

This study was intended to measure self-reported "direct learning outcomes" of students in a leadership preparation cohort program based on a list of recognized competencies for practicing administrators and to further the current discussion on the evaluation of educational leadership preparation programs. Despite initial perceptions of cohort participants that they had high levels of preparation on many administrative tasks, perceptions did shift over the course of the program and statistically significant differences were found in their perceived levels of preparation for administrative work.

One of the surprising findings from the pre-program survey results was the level of confidence the cohort members had in their preparation to fulfill many administrative tasks. One possible hypothesis is that the results actually reflect the purposeful selection process that was used to identify members of the cohort. Prior to the start of the program, division superintendents were asked to identify exemplary teachers who had leadership potential as program candidates. The identified teachers were expected to exhibit strong instructional skills and an interest in serving as school principals. It is assumed, therefore,

Table 3

Percentage of Cohort Participants Who Rated These Administrative Tasks as the Top Ten Highly Important Tasks at the End of the Program Compared to Sitting Principals

Administrative Tasks	Percentage of Cohort Participants Who Rated Item Highly Important (%)	Percentage of Principals Who Rated Item Highly Important (%)
Data driven decision making	100.0 (Mean = 3.00)	44.0
Student achievement on standardized tests/Standards of Learning	89.5 (Mean = 2.89)	60.1
Teacher evalaution to improve instruction	89.5 (Mean = 2.89)	50.3
Building an effective administrative team	89.5 (Mean = 2.89)	35.6
Managing stress	89.5 (Mean = 2.89)	36.1
Special educational law and implementation	84.2 (Mean = 2.84)	45.9
Working with families	84.2 (Mean = 2.84)	43.1
Enhancing my leadership skills	84.2 (Mean = 2.84)	35.1
Personal time management	84.2 (Mean = 2.84)	31.1
Strategic planning/Goal setting[1]	78.9 (Mean = 2.79)	37.3

N = 19

[1]Six administrative tasks were tied for 10th place.

that these teachers had high levels of self-efficacy, that their students performed well, and that colleagues and leaders noticed their impact at the classroom and school level. It could be assumed that these teachers already had assumed teacher leadership roles within their schools and indeed had experience with various administrative tasks.

Despite the level of confidence reported by participants in their preparation to perform various administrative tasks early in the program, it increased markedly during the course of the program. While a majority of participants reported being highly prepared to perform 3 administrative tasks at the beginning of the program, most reported being highly prepared to do 15 administrative tasks by the end of the program. Shifts also occurred in the "none" and "low" categories of preparation such that no one reported either of these levels of preparation for most administrative tasks by the end of the program.

There were slight shifts in what cohort participants viewed as the 10 most important administrative tasks over the course of the program. At the end of the program, issues of accountability and student achievement were more prominent, which was consistent with the focus of the superintendents who helped to shape the program (Grogan & Roberson, 2002). The top 10 list of administrative tasks also more closely mirrored that of seated principals. While "enhancing my leadership skills" continued to be rated as one of the top 10

most important tasks (Mean = 2.84), 80% of the students felt "highly prepared" in the area by the end of the program.

Overall, they reported a perceived enhancement of their preparation to fulfill key administrative tasks, and t-test results confirmed this perception. Statistically significant differences in the level of perceived preparation to perform the 4 major categories of administrative tasks were reported by participants (p < .05). A majority of participants noted the highest levels of preparation in the categories of Professionalism (Mean = 2.58), followed by Planning and Instructional Leadership (Mean = 2.47) and Communication (Mean = 2.43). The lowest percentages of participants reporting "high" levels of preparation were in the area of Organizational Management (Mean = 2.28). A majority of participants reported "average" levels of preparation in all but one task in this category, Budgeting and Resource Allocation, for which a majority rated a "high" level of preparation (Mean = 2.58). Administrative tasks in this area could be considered more experiential than those in other areas and included functions such as non-academic student behavior, staff evaluation and documentation for promotion/dismissal, and management and supervision of support staff. Although all of the students in the cohort were involved in internships, this finding suggests the need for more highly developed and extensive internships.

Table 4
**Percentage of Cohort Participants Who Reported Indicated Levels of Preparation to Fulfill
the Administrative Tasks Ranked as Highly Important at the End of the Program**

Administrative Tasks	Level of Preparation (%)			
	None	*Low*	*Average*	*High*
Data driven decision making (Mean = 2.84)	0.0	0.0	15.8	84.2
Student achievement on standardized tests/Standards of Learning (Mean = 2.74)	0.0	0.0	26.3	73.7
Teacher evaluation to improve instruction (Mean = 2.68)	0.0	0.0	31.6	68.4
Building an effective administrative team (Mean = 2.42)	0.0	0.0	57.9	42.1
Managing stress (Mean = 2.16)	5.3	5.3	57.9	31.6
Special educational law and implementation (Mean = 2.42)	0.0	0.0	57.9	42.1
Working with families (Mean = 2.53)	0.0	5.3	36.9	57.9
Enhancing my leadership skills (Mean = 2.79)	0.0	5.3	10.5	84.2
Personal time manegement (Mean = 2.63)	0.0	0.0	36.9	63.2
Strategic planning/Goal setting (Mean = 2.42)	0.0	5.3	47.4	47.4

N = 19

Table 5
**Paired t-tests for Pre- and Post-Program Subscores for Preparation in the
Four Major Categories of Administrative Tasks**

Categories of Administrative Tasks	t	df	Significance (2-tailed)	Pre- and Post-Means
Planning and Instructional Leadership	8.516	16	.000	1.84 / 2.47
Organizational Management	4.303	15	.001	1.71 / 2.28
Communication	3.301	16	.005	1.90 / 2.43
Professionalism	4.067	17	.001	2.11 / 2.58

In terms of program evaluation, this approach of using pre- and post-program survey data seems to merit further consideration as a means of measuring direct learning outcomes. There were notable shifts in the perceptions of program participants over the 18-month program both in terms of what was important from an administrative perspective and the students' assessment of their own levels of preparation to fulfill various tasks. The data drawn from such a survey can offer both a value-added determination of the program effectiveness and a point of comparison with field-based norms for seated principals. In addition, comparisons might be made with highly successful principals in today's context to determine how they allocate their time and energies to these various administrative tasks and use these as benchmarks for the development of highly qualified administrative candidates. More detailed and specific data on the learning outcomes of students in preparation programs, such as these, are needed to both demonstrate the value of leadership preparation and to fuel further improvement.

Implications for Further Research

This study served two purposes: one was cohort program evaluation; and the second was a methodological exploration of the measurement of "student learning outcomes." The outcomes were based on self-reported assessments of preparation for identified administrative tasks as well as student perceptions of the cohort experience. It was found that the members of the cohort reported statistically different ratings for their level of preparation after participation in the leadership development program. This finding was encouraging from a program perspective, but the study offered little in the way of opening up the "black box" described by Donaldson and Scribner (2003). Nothing is known of the curricular or instructional elements that contributed to the sense of improved knowledge and skills. In fact, the pre- and post-assessments did not match the program content, but rather the state licensure regulations. Further research, therefore, is needed to address the curricular and instructional aspects of leadership development from multiple perspectives.

Unanswered questions from the perspective of the cohort participants include:

- Why did students perceive themselves to be better prepared in the domains of professionalism and instructional leadership?
- What specific aspects of the program advanced student learning?
- What factors contributed to, or challenged, levels of preparation in identified administrative tasks prior to the cohort experience?
- Why do aspiring principals have different perceptions of the most important administrative tasks than those of seated principals?
- Given the differences in the roles of assistant principal and principal, to what extent do leadership development programs, specifically the cohort experience, prepare participants for the assistant principalship, the principalship, or for both?

Anecdotal data suggest that since their graduation in January 2004, at least half of the cohort participants are in formal leadership positions, all of whom have successfully managed serious school issues. Empirical studies tracking students' success in attaining leadership positions, as well as assessments by supervisors, and tangible evidence of school improvement and impact on leadership practice are needed to validate these anecdotal data and to make program evaluation more authentic and rigorous as discussed by Orr (2003).

Another question suggested by the findings in this study is the role of the internship in the overall sense of preparation by the student. The overarching question suggested by the above discussion might be: Is there a difference in learning outcomes of participants based on delivery model, program content, or characteristics of the internship? Additional comparisons of leadership development program delivery models are, therefore, in order. A mixed between-within design would be the most appropriate approach for such studies. According to Lomax (2001), this design combines the benefits of the one-factor repeated measures analysis with that of two-factor fixed-effects models. In the current study, the within-subject repeated measure might be learning outcome variables (factors), such as student or supervisor perception of preparation, assessed both before and after the leadership development program. An additional within-subject repeated measure might be pre-test and post-test scores on a leadership assessment instrument, such as the *School Leaders Licensure Assessment*, currently used in Virginia and a number of other states for state endorsement (Educational Testing Service, 2005). Choices for the between-groups variable could be the delivery model (cohort vs. other), participant selection criteria, program content, or characteristics of internship experience.

While the ultimate goal in program evaluation will be to measure the impact of our graduates on a variety of school improvement indicators, for the present, this initial effort to capture student perceptions in a pre- and post-program survey design promises to provide at least one perspective on program effectiveness. The survey questions go beyond the typical satisfaction ratings and attempt to tease apart the level of preparation on a carefully constructed set of administrative tasks that were developed in concert with seated principals (DiPaola & Tschannen-Moran, 2001). Such an approach offers a possible first step on the journey to evaluating the ultimate purpose of our preparation programs, producing school leaders capable of fundamental school improvement.

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Standards-Based Leadership Preparation Program Improvement Through the Use of Portfolio Assessments

Donald G. Hackmann and Thomas L. Alsbury

The school principal's role has changed dramatically in the past few decades, moving away from management issues and into responsibilities related to leading school reform and facilitating student learning. There is an emerging consensus that successful principals not only must be effective instructional leaders but they also must possess the capacity to transform the school culture to promote improved student achievement (Grogan & Andrews, 2002). Recognizing the administrator's changing role expectations, the Interstate School Leaders Licensure Consortium (ISLLC) crafted six standards for leadership in 1996, which maintain a consistent focus on teaching and learning and assert the leader's responsibility to create "powerful learning environments" (Council of Chief State School Officers (CCSSO), 1996, p. 8). A majority of the 50 states have incorporated the ISLLC standards into their licensure requirements for the principalship. Additionally, in all 50 states, many colleges of education are evaluated and accredited through the National Council for Accreditation of Teacher Education (NCATE) that uses the ISLLC standards in their assessment and processes, requiring seven assessment points and multiple measures including portfolio options.

Through accreditation and state licensure requirements, administrator preparation programs have been called upon to restructure their curricula to more fully address the principalship's shifting role expectations and to better prepare aspiring school leaders. Due to ISSLC mandates, many educational leadership programs are adopting standards-based programs, which are designed to prepare aspiring principals with the competencies necessary to lead school reforms and structure schools that promote improved student learning. This article shares one educational leadership program's experiences with the use of student portfolios to assist in assessment of the program's effectiveness in preparing aspiring school principals. We begin with a discussion of market pressures for program reforms, which include the use of student portfolios for student assessment. After describing various types and purposes of portfolios, we provide a brief review of literature related to evaluation of educational leadership programs and note how portfolio assessments can be used not only for individual

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assessment but also for program assessment. We then share the results of our analysis of student portfolios and describe programmatic changes our faculty has made to our principal preparation program as a result of this summative evaluation activity.

Market Pressures for Program Modifications

In recent years, preparation programs have been subject to intense scrutiny and criticism because they are perceived as being slow to integrate the principal's changing responsibilities into curriculum content and, consequently, continue to prepare aspiring administrators for outdated roles as top-down managers (Grogan & Andrews, 2002). In addition, market pressures are emerging from alternative leadership preparation programs venues, providing incentives for university-based preparation programs to engage in self-evaluation activities (Glasman, Cibulka, & Ashby, 2002).

Continued advancements in distance learning delivery mechanisms may eventually drive programs to more substantive self-evaluation in an effort to determine necessary reforms that may increase appeal to potential clients at the expense of program rigor. This is evidenced by the paradoxical calls from educational administration researchers for the increase in rigor and an emphasis on leadership over management in existing training programs against a growing number of potential leaders who are opting for less rigorous alternative preparation programs that focus on using current practitioners to prepare future leaders with applicable and politically potent management tools that will assure they survive their first year on the job. As a result of these and other forces, many educational leadership programs indeed have restructured, incorporating ISSLC standards into their curriculum content and promoting an enhanced focus on issues related to instructional leadership and school improvement. Some models are being touted as "innovative" (Jackson & Kelley, 2002), experimental (Glasman, 1997), and performance-based (Cox, Biance, & Herrington, 1999). Course activities are moving away from traditional forms of assessment—such as research papers and in-class examinations—to more authentic assessment measures to assist the student in skills mastery (Hackmann & Walker, 2001).

Assessment Alternatives in Higher Education Programs

The discussion concerning alternative assessment in education has risen as a natural outcome of a paradigm shift from teacher-centered to learner-centered instruction that started in K-12 settings and has moved into higher education (Huba & Freed, 2000). Cross (1996) noted "it is through a lens that focuses on learning that we must ultimately examine and judge our effectiveness as educators" (p. 9). Although learner-centered instruction within the classroom is not within the scope of this paper, Huba and Freed (2000) and other prominent higher education leaders have stated that the paradigm shift to a learner-centered approach to instruction in graduate programs necessitates a similar shift from assessments used to monitor learning to assessments used to promote and diagnose learning.

Learner-centered assessment is a broad concept that can be defined as a process of gathering and discussing information from multiple and diverse sources in order to develop a deep understanding of what students know, understand, and do with their knowledge as a result of their educational experience. Far from simplistic, there are multiple elements to a learner-centered assessment model, including the formulation of statements of intended learning outcomes, the selection or development of assessment measures, the creation of experiences leading to outcomes, and the discussion and use of assessment results

to improve learning (Huba & Freed, 2000). More directly speaking to our study's focus, Huba and Freed (2000) indicated that no definition of learner-centered assessment was complete unless, "the process culminates when assessment results are used to improve subsequent learning" (p. 8). Focusing on the final element of learner-centered assessment, this study focused on using student portfolios for program improvement. Plater (1998) may have stated the need to focus on this element most succinctly when he wrote, "What does the degree or certificate that we award mean and how can we prove it?" (p.12)

Although this study focused on portfolios, assessment measures in higher education programs should include both direct and indirect measures of student learning (Palomba & Bates, 1999). Direct assessments include projects, products, paper, exhibitions, performances, case studies, clinical evaluations, interviews, and oral exams as well as portfolios. Indirect assessments of learning can include surveys of students or past graduates that elicit feedback on what the graduate or student knows or can do with their knowledge. Assessment through objectively scored paper and pencil tests can also be used; however, while easy to use and effective in measuring factual knowledge, they have been criticized for assessing knowledge in discrete bits and lacking references to real-world application (Resnick & Resnick, 1992). Assessments for prospective school administrator are needed that allow the measurement or demonstration of complex abilities such as reasoning, using information to solve complex problems, and the simultaneous use, application, and integration of knowledge in situations where there is often no one correct answer. Huba and Freed (2000) discuss and defend the use of assessment like projects, papers, performances, and exhibitions as well as portfolios in higher education courses. Indeed all of the abovementioned assessment measures are currently used in individual courses within the administrator preparation program in this study and aligned to provide a comprehensive coverage of the ISSLC standards. However, in the administrator preparation program in this study, portfolios were selected as the preferred summative assessment because they allow the inclusion of multiple authentic assessment forms. Black (1993) supported this contention stating, "Perhaps more than any other assessment technique, portfolios provide a detailed mosaic of student learning as it develops over time" (p.146).

Portfolio Use in Administrator Preparation Programs

An increasing number of educational leadership faculties require students to create portfolios during their preparation programs, and the literature base contains an array of diverse programmatic perspectives related to their use. There is general agreement that this compilation permits students to demonstrate theory-to-practice connections (Cornett & Hill, 1992; McCabe, Ricciardi, & Jamison, 2000; Wilmore & Erlandson, 1995) or their theories-in-use (Barnett, 1991). In addition, documentation of reflective practice and personal growth is an integral component through the inclusion of reflective writings developed in course activities, daily internship reflection journals, and explanation of portfolio entries (Cornett & Hill, 1992; Edmonson & Fisher 2002; Harris & Arnold, 2001; McCabe et al., 2000; Meadows, Dyal, & Wright, 1998; Stader & Neely, 2001).

The support for the use of a portfolio as an appropriate summative alternative assessment is dependent on the format used within the portfolio. Student reflection summaries and self-examination allow for students and instructors to evaluate their work in a systematic way. The inclusion of significant and relevant field experiences in the portfolio along with classroom papers, activities, and presentations place the

emphasis on the demonstration of what students can do rather than simply on whether knowledge has been acquired. However, a portfolio that is a collection of student work is not an assessment tool--it is just a folder. Huba and Freed (2000) noted that in order for a portfolio to be an assessment, "someone must reflect and make judgments about its contents" (p. 234).

Portfolios Defined

An administrative portfolio can be defined as "a collection of thoughtfully selected exhibits or artifacts and reflections indicative of an individual's experiences and ability to lead and of the individual's progress toward and/or the attainment of established goals or criteria" (Brown & Irby, 2001, p. 2). Because it contains the learner's careful and deliberate self-selection of documents that are illustrative of her/his competence and growth, the portfolio—by definition—is unique to the individual.

Two types of evidence are appropriate for inclusion in the portfolio: artifacts and attestations (Barnett, 1995). Artifacts represent tangible products created through the individual's participation in various assignments or work-related responsibilities. For example, an educational leadership student's artifacts may include such course assignments as research papers, an educational philosophy statement, a leadership platform, the student's resume, and a variety of performance-based assessments, such as: student's materials from a clinical supervision activity conducted with a teacher; action research project; case study analysis; data dissaggregation and analysis of a school's achievement test scores; creation of a three-year parent involvement plan for a school; or a school cultural analysis. Work-related artifacts may include products developed during the student's clinical or internship placement, such as: a completed school master schedule; school budget; analysis of a school's comprehensive school improvement plan; school crisis management plan; student orientation materials; teacher handbooks; student handbooks; and internship reflective journals. Attestations represent documents created by someone other than the student which verify her/his competencies or accomplishments. Among these artifacts could be college transcripts; letters of recommendation; professional licenses; personal notes from parents or students; and honors and awards.

Types and Purposes of Portfolios

Several portfolio formats are possible, depending on the intended function, which may "vary from enhancing the quality of the learning process to that of standardized reporting by districts or states" (Gredler, 1995, p. 432). An effective portfolio contains three components: biographies of student work; a variety of work; and student reflections (Wolf, 1989). The biography of work illustrates the student's depth of effort within the discipline, noting the development of thought and understanding of content. In contrast, the variety of work documents breadth of effort within the discipline as the learner selects an array of artifacts in various formats across the content area standards. Finally, student reflection is essential for the student to describe each artifact in context; to explain how it documents content knowledge and skills mastery and illustrates personal growth; and to explain what the student learned through the process of creating the artifact (Barnett, 1995; Wolf, 1989).

Portfolio Structure versus Individuality

Portfolios may be accessed to promote self-assessment, program assessment, and external assessment, and different types of evidence will be collected to accomplish each purpose (Barnett, 1995). When used as a self-assessment mechanism, there may be minimal institutional concerns related to standardization of format because the aim is to develop self-directed learners. The student maintains a high degree of control over the contents, selecting artifacts and other entries that demonstrate strengths and weaknesses, while capturing growth over time. Self-reflection is an important element as the student develops the capacity to evaluate her/his academic progress and develop personal goals for continuing learning. A showcase portfolio, in which the learner selects his/her best or favorite works, provides one example of this type of portfolio (Gredler, 1996; Valencia & Calfee, 1991).

When used for program assessment purposes, there likely would be increased institutional requirements for structural consistency, which will restrict the student's freedom in artifact selection. Entries are used as a formative assessment mechanism as the student progresses through the program, with instructors working closely with the student to assess current levels of performance, to note areas in which the student has mastered content standards, and to recommend areas in which additional growth is needed. When the student completes the program, the portfolio becomes a summative assessment tool, with entries scored through the use of predetermined evaluation criteria and rubrics (Gredler, 1996). An evaluation portfolio, containing largely standardized student work collections to report student achievement, provides an example of a portfolio developed for program assessment (Gredler, 1996; Valencia & Calfee, 1991). Portfolios become an external assessment tool when they are shared with others outside the institution to describe the student's skills and abilities (Barnett, 1995). The structure and format of this dossier will vary depending on the intended audience. Aspiring administrators may submit this type of portfolio when interviewing for an administrative position or when applying for their initial administrative licensure.

Portfolios created by practicing administrators are used for three purposes: professional development; performance evaluation; and career advancement (Brown & Irby, 2001). The evaluation portfolio developed while the aspiring principal is enrolled in an educational leadership preparation program could seamlessly evolve into a professional development portfolio once the student has successfully gained an administrative post (Guaglianone & Yerkes, 1998).

Academic Freedom versus Program Continuity

Many leadership programs employ the portfolio as a both a formative and summative assessment tool for the learner, designing it to satisfy the university's comprehensive examination requirements and/or state licensure conditions (Barnett, 1991; Bradshaw, Perreault, McDowelle, & Bell, 1997; Edmonson & Fisher, 2002; Harris & Arnold, 2001; Meadows et al., 1998). Because of the relatively high-stakes nature of the summative evaluation component, program faculties tend to standardize the format, defining those categories in which artifacts can be positioned and identifying specific assignments that must be included. Several programs have elected to use leadership standards to frame this portfolio structure, initially using the National Policy Board for Educational Administration performance domains (Wilmore & Erlandson, 1995), state leadership standards (Bradshaw et al., 1997), and more recently the six ISLLC standards (Hackmann & Walker, 2001; Harris & Arnold, 2001; McCabe et al., 2000; Stader

& Neely, 2001). While the use of the ISLLC standards has become the popular measure for school leadership, the standards are being questioned by some researchers for their narrow focus, and some preparation programs are attempting to assess student performance through a broader lens such as social justice issues (Murphy, 2005; Owings, Kaplan, & Nunnery, 2005).

The literature base contains few references to concerted faculty efforts to align course content, instruction, and performance assessments in an effort to enrich the quality of authentic assessment activities that could be included in student portfolios. Barnett (1991) noted that assessment measures "must be integrated into the overall curriculum and course delivery" (p. 6), requiring instructors to "infuse new ideas into their teaching" (p. 7). Hackmann and Walker (2001) explained that their program faculty are engaged in identifying authentic class assignments that could be effective portfolio artifacts. Cox et al. (1999) reported that their program's competency-based approach to leadership includes an aligned curriculum, multiple assessments, and a performance portfolio that students develop over the course of their entire program of studies. Although Meadows et al. (1998) noted that "a positive result of the implementation of portfolio assessment has been the resulting improvement of instructional practices and course design throughout the educational leadership preparation program" (p. 97), they acknowledged that this outcome was unanticipated. That many reports concentrate on the creation of the portfolio itself (the product) and do not discuss the interrelationships of curriculum and instruction to the design of performance assessments (the process), however, does not necessarily provide evidence that pedagogical discussions did not occur among the faculty.

Program Evaluation in Administrator Preparation Programs

Educational administration faculty members should engage in continuous self-assessments of the effectiveness of their administrator preparation programs so that they can identify areas in which their students could be more effectively prepared to assume leadership roles. However, preparation programs traditionally have not actively engaged in program evaluation. Glasman, Cibulka, and Ashby (2002) point out that leadership programs actually have had numerous disincentives for program improvement, including a lack of universal agreement on standards for leadership, a lack of pressure from the policy community to reform leadership programs, resistance from within the university community, and market restraints that historically have discouraged academic rigor.

When self-evaluations have been reported by leadership faculty, they typically include the compilation of perceptual data, such as surveys to assess graduates' perceptions of the quality of their preparation (Krueger & Milstein, 1995; Slater, McGhee, & Capt, 2001) and feedback from supervisors and hiring officials related to novice administrators' preparation (Krueger & Milstein, 1995). These data are limited in that they relate to only individuals' perceptions, rather than addressing a program's efficacy in ensuring that students have attained program goals and have internalized essential content knowledge and skills.

The literature base related to portfolio analysis for program evaluation purposes is virtually nonexistent (Glasman et al., 2002), and there is a lack of agreement on the appropriate usage of portfolios for evaluation purposes. For example, Gredler (1995) and Lindle (1997) caution against their use as an evaluation tool while Harris and Arnold (2001) actively promote this purpose. Although McCabe et al. (2000) reported that graduates believed their portfolios assisted them

in demonstrating attainment of administrative knowledge and skills, this information, once again, relied on surveys to assess graduates' perceptions. An analysis of authentic artifacts contained in student portfolios could be helpful in evaluating a program's effectiveness in aligning curriculum, instruction, and assessments to the program goals and curriculum standards.

Standards-Based Portfolios: Iowa State University's Experience

At the beginning of the Fall 1999 semester, the Iowa State University educational administration faculty implemented a restructured principal preparation program that was aligned to the ISLLC standards. A new assessment requirement was the inclusion of portfolios to document content mastery upon program completion. Students were to self-select a minimum of two authentic artifacts within each standard that they had developed in their course activities and through their 400-hour internship placements. Reflective writings were included within each standard in which the student explained why each artifact was selected and described how the artifacts *in toto* documented proficiency under the standard. A portfolio defense became the foundation of each student's two-hour oral examination with her/his committee of professors.

The first students to complete the restructured program graduated in Fall 2001, and formative data generated through informal analysis of the portfolios and faculty questioning of students during the oral examinations immediately began to disclose both strengths and limitations of the standards-based curriculum. Faculty observed that quality varied tremendously among the submitted artifacts; yet students generally were able to verbalize sufficient content knowledge and skills during the oral examination. In addition, portfolio entries frequently did not fully demonstrate authentic theory-to-practice connections because students tended to include artifacts that contained few references to the educational administration literature.

The faculty accumulated the portfolios of graduating students over a two-year timeframe, providing sufficient numbers to engage in a summative evaluation of the program as evidenced in the content of these documents. Results of this analysis would enable faculty to draw conclusions related to the effectiveness of the restructured program in adequately preparing aspiring school leaders, illuminating weaknesses in student mastery for individual ISLLC standards and to permitting cogent recommendations for modifications in curriculum content, instruction, assessment, or portfolio design directives for staff and students at Iowa State University. The remainder of this paper explains the methods used to analyze the portfolios, explains the results, and discusses programmatic reforms implemented as a result of this inquiry.

Methods

During the Fall 2003 semester, two faculty members conducted a summative portfolio analysis, closely examining all available portfolios (n = 26) from principal licensure students who had graduated between the Fall 2001 and Summer 2003 semesters. These 26 students represented 9 females and 17 males who were experienced teachers when entering the program. At the time of their oral examinations, nine of these individuals had attained an administrative position, either as principal or assistant principal, and 8 of the 9 were males.

A qualitative research method was used in conducting a content analysis, generally categorized as a deductive qualitative analysis where the data were analyzed according to an existing framework (Patton,

2002). In this study the pre-existing set of typologies or rubrics was the six ISLLC standards and descriptors as well as portfolio quality measures including: organization; critical and reflective thinking; grammar; spelling and mechanics; overall presentation; and use of references. A scoring scale was developed to translate the content analysis into a numerical rating for level of overall demonstration of each of the ISLLC standards as well as each of the quality measures noted above. The following category headings and descriptions were used:

1. Advanced (4 points) - All reflections and artifacts clearly and effectively demonstrate the knowledge, dispositions, and complex performance related to the standards.
2. Basic (3 points) - Most reflections and artifacts clearly and effectively demonstrate the knowledge, dispositions, and complex performance related to the standards.
3. Emerging (2 points) – Some reflections and artifacts clearly and effectively demonstrate the knowledge, dispositions, and complex performance related to the standards.
4. Unacceptable (1 point) – Few reflections or artifacts clearly and effectively demonstrate the knowledge, dispositions, and complex performance related to the standards.

To provide some measurement reliability and validity, several methods were employed including inter-rater reliability and a content analysis protocol. Researchers independently evaluated and scored the portfolios using the same ISLLC-based rubric and scoring scale. The protocol called for the rater to review and use a list of the ISLLC standards delineated into its 44 knowledge, 44 dispositions, and 97 performance descriptors. The raters were instructed to checkmark one or more of the 185 ISLLC descriptors as they reviewed the content of the six portfolio reflections (one for each ISLLC standard), the student's overall reflection of their learning over the entire preparation program, and the 12 artifacts (two for each standard). The rater then scored the portfolio contents on the scoring scale (one to four) described above for each of the ISLLC standards as well as the quality measures noted.

Researchers then compared, discussed, and agreed on the proper valuation for the level of standard attainment demonstrated by the students through their selected artifacts. This technique, called consensual validation (Patton, 2002, p. 467), provides a substantive significance that otherwise is not possible in studies of qualitative data. The method also tends to negate personal bias that might be brought by a single scorer and thus provides a measure of inter-rater reliability (Creswell, 2002). During the course of the analysis, patterns emerged that led to a modification of the original rubric scale, changing the methodology from what appeared would be a straight deductive approach to a combination of inductive and deductive analyses.

Additionally, the portfolio raters noted whether each portfolio artifact was developed within a specific course or created during their clinical activities or other job-embedded activities. Also, in an attempt to determine if artifacts demonstrated theory-to-practice connections, we noted whether artifacts represented authentic activities that would be completed by school leaders or were more theoretical in nature.

Quantifying ISSLC Attainment

Because of the use of rubric rankings, it was possible to procure numerical values as an outcome of the content analysis, moving the analysis methods into a type of quantitative approach. Although this archival content analysis strategy has received mixed support among educational methodologists (Krippendorff, 1980; Weber, 1985) this

mixed methodology was appropriate because it permitted us to view the information from multiple vantage points, leading to a more comprehensive analysis of data for program evaluation purposes. Consequently, correlation data, while providing a measure of inter-rater reliability and instrument validity, is of secondary importance compared to patterns emerging from the descriptive data analyzed through traditional qualitative comparative analyses.

Results and Analysis

Qualitative Content Analysis

Careful analysis of the source of each artifact determined that nearly all items were generated from in-class activities (such as problem-based learning activities and group projects) or course assignments (such as research papers, administrator interviews, and book summations). When assessed through a lens of authenticity, the researchers noted that many artifacts were more theoretical in nature, demonstrating limited connections to administrative practice. This finding primarily was due to the fact that only a few artifacts were presented emanating from students' field-experience placements even though 400 hours of clinical activities were required throughout the program. Artifacts that were closer to the theory side of the theory-practice continuum included such documents as research papers, PowerPoint presentations related to reviews of leadership books, interview summaries, and administrative platforms. In addition, faculty noted that the majority of the submitted artifacts typically did not require students to access the literature base related to educational leadership. When examined by gender, there appeared to be little difference related to artifact origin: both females and males tended to primarily include class-based assignments.

The content analysis disclosed both unnecessary content overlap and the absence of essential curriculum content. Redundancy was noted, in that students had completed essentially similar assignments in multiple classes; for example, students engaged in duplicative group activities dedicated to designing "schools of the future" and conducted numerous interviews of practicing administrators, counselors, and board members. Conspicuously absent were artifacts related to administrative uses of technology, knowledge of effective instructional practices in promoting student learning, effective assessment practices, diversity, transformational leadership, social justice, and school reform.

Some confusion apparently existed related to students' understanding of the type of portfolio that was to be developed. Some presented this document as a learning portfolio that displayed their growth throughout the program; these students tended to include their original class assignments that contained their instructors' grades and corrections. Others chose to include artifacts that were a source of pride even though they had developed other products that could have been more effective in demonstrating mastery of the standards. It was possible that students excluded authentic artifacts generated in the field because they had not previously submitted them to their instructors for review or because they may have found it difficult to fully document and explain their levels of involvement with artifacts jointly developed with their mentor principals. Analysis of the students' reflective writings, however, disclosed that they displayed an understanding of the content knowledge and skills contained within each standard and that they generally were effective in assessing their personal mastery of each standard.

Descriptive Statistics

Group means disclosed that the rubric scores on the 26 student portfolios on average clustered around the basic level on every standard. The numerical ratings followed the values: advanced = 4, basic = 3, emerging = 2, and unacceptable = 1. As shown on Table 1, students approached the Basic level on Standard 1 (vision of learning) and Standard 5 (integrity, fairness, ethics). They exceeded the Basic level on Standard 2 (school culture and instructional programs); Standard 3 (management of the organization, operations, resources); Standard 4 (collaboration with families and community); and Standard 6 (political, social, economic, legal, and cultural context). Mean ratings were highest overall on Standard 3, which addresses management of the organization. Additionally, proficiency means were achieved under the "quality areas" of organization, critical/reflective writing, writing mechanics, and overall presentation, but the mean was below the basic level for students' use of references.

Score Variation Based on Gender

Data disclosed a consistent pattern between male and female performance on the portfolio, with females scoring higher on every ISLLC Standard and on the additional quality standards measured in this analysis. The most pronounced difference between male and female scores was observed in Standard 3 (management of the organization, operations, resources), with a difference of 0.49, and Standard 6 (political, social, economic, legal, and cultural context), with a difference of 0.45. Within the criteria for portfolio quality, females showed the highest difference scores in organization and overall presentation, each with a difference of 0.60.

Analysis of Variance (ANOVA) tests, shown in Table 2, disclosed that the score differences between males and females were statistically significant for Standard 3 ($\rho = 0.011$), Standard 6 ($\rho = 0.035$), Total Standards ($\rho = 0.014$), organization ($\rho = 0.10$), and overall presentation ($\rho = 0.019$). The alpha level set for the two-tailed ANOVA test was 0.05. Additional ordinal nonparametric correlation tests included a Mann-Whitney U and Wilcoxon, which yielded confirmation of the results established by the parametric tests. Establishing homogeneity of variances is necessary when conducting analyses of variance, particularly when the population size is small as in the current study. Homogeneity of variance tests indicated that the populations from which the two groups (male and female) were drawn were equally variable. A varimax-rotated principal components factor analysis indicated that scores from Standards 1, 3, and 4 were closely related on one factor while scores from Standard 2, 5, and 6 were closely connected on a second factor. Although this variability in the clustering of the Standards is difficult to explain, it may indicate the need to design portfolios that require a composite and integrative approach rather than our current practice of delineating reflections and artifacts for each independent standard.

This rubric analysis suggest that, although Iowa State University's principal preparation program was conceived to focus on leadership principles over management, portfolio artifacts show that student mastery is most highly developed in the area of school management and least developed in demonstrating a vision of learning and engaging in transformational leadership. The lower score on the ethics standard may point to a difficulty in developing high-quality course assignments and field requirements related to students' experiences with professional ethics.

Table 1
Mean Scores for ISLLC Standards for the Iowa State University
Principal Leadership Program Culminating Portfolios, 2001 to 2003

Content Standard	Gender	Mean Rating	Standard Deviation	Standard Error
Standard 1	Female	3.22	.441	.147
	Male	2.82	.529	.128
	Total	2.96	.528	.103
Standard 2	Female	3.33	.707	.236
	Male	3.29	.588	.143
	Total	3.31	.618	.121
Standard 3	Female	3.67	.500	.167
	Male	3.18	.393	.095
	Total	3.35	.485	.095
Stabdard 4	Female	3.22	.667	.222
	Male	2.88	.485	.118
	Total	3.00	.566	.111
Standard 5	Female	3.11	.333	.111
	Male	2.82	.529	.128
	Total	2.92	.484	.095
Standard 6	Female	3.33	.500	.167
	Male	2.88	.485	.118
	Total	3.04	.528	.103
Quality Standard	**Gender**	**Mean Rating**	**Standard Deviation**	**Standard Error**
Organization	Female	3.89	.333	.111
	Male	3.29	.588	.143
	Total	3.50	.583	.114
Reflection Quality	Female	3.67	.500	.167
	Male	3.29	.588	.143
	Total	3.50	.578	.113
Writing Mechanics	Female	4.00	.000	.000
	Male	3.76	.437	.106
	Total	3.85	.368	.072
Use of References	Female	2.56	.726	.242
	Male	2.41	.618	.150
	Total	2.46	.647	.127
Overall Presentation	Female	3.78	.441	.147
	Male	3.18	.636	.154
	Total	3.38	.637	.125

n = 26 (Females = 9, Males = 17).

Discussion

This program evaluation activity provided an interesting array of data, which has been helpful in guiding faculty discussions and assisting in the identification of needed improvements to the principal preparation program. This section focuses on the quality of student artifacts, curriculum alignment issues, intended portfolio type, and feedback related to scores on the standards and gender differences.

Quality of Student Artifacts

The artifact analysis disclosed that the quality of portfolios varied greatly, ranging from dossiers that primarily contained theory-based classroom assignments to those consisting mainly of job-embedded products with no theoretical underpinnings. Meadows, Dyal, and Wright (1998) explain that "a major focus of the portfolio should be to address theoretical knowledge gained in courses as well as competencies attained through practical experiences" (p. 96). Certainly, the majority of these students effectively demonstrated the theory-to-practice linkages within their overall portfolio framework, but some students clearly were unsuccessful in establishing this important connection between theoretical knowledge and administrative practice.

A more in-depth analysis of artifacts uncovered the fact that, with appropriate modifications to course assignments, the products could

Table 2
Results of ANOVA Test Comparing Results of Male and Female Students for ISLLC Standards and Portfolio Quality Standards for the Iowa State University Principal Leadership Program Culminating Portfolios, 2001 to 2003

		Sum of Squares	df	Mean Square	F ratio	F probability
Standard 1	Between Groups	.935	1	.935	3.725	.065
	Within Groups	6.026	24	.251		
	Total	6.962	25			
Standard 2	Between Groups	.009	1	.009	.023	.881
	Within Groups	9.529	24	.397		
	Total	9.538	25			
Standard 3	Between Groups	1.414	1	1.414	7.591*	.011
	Within Groups	4.471	24	.186		
	Total	5.885	25			
Standard 4	Between Groups	.680	1	.680	2.229	.149
	Within Groups	7.320	24	.305		
	Total	8.000	25			
Standard 5	Between Groups	.487	1	.487	2.179	.153
	Within Groups	5.359	24	.223		
	Total	5.846	25			
Standard 6	Between Groups	1.197	1	1.197	4.983*	.035
	Within Groups	5.765	24	.240		
	Total	6.962	25			
Total Standards	Between Groups	23.693	1	23.693	7.050	.014
	Within Groups	80.654	24	3.361		
	Total	104.346	25			
Organization	Between Groups	2.082	1	2.082	7.784*	.010
	Within Groups	6.418	24	.267		
	Total	8.500	25			
Reflection Quality	Between Groups	.817	1	.817	2.603	.120
	Within Groups	7.529	24	.314		
	Total	8.346	25			
Writing Mechanics	Between Groups	.326	1	.326	2.556	.123
	Within Groups	3.059	24	.127		
	Total	3.385	25			
Use of References	Between Groups	.122	1	.122	2.82	.600
	Within Groups	10.340	24	.431		
	Total	10.462	25			
Overall Presentation	Between Groups	2.128	1	2.128	6.362*	.019
	Within Groups	8.026	24	.334		
	Total	10.154	25			

*$p < .05$ (two-tailed).
n = 26 (Females = 9, Males = 17).

have been more effective in facilitating theory-practice connections for students. For example, many assignments containing reflective writings or journal entries did not require students to reference the literature in their reflections. Simply incorporating the requirement that students were to cite the literature base within their reflection could be an effective mechanism on promoting these connections to practice. Also, the relative paucity of products from internship experiences may be related to the relative autonomy that our students and mentors have enjoyed during the internship placement. Providing more definition and structure to the clinical experience would enhance the probability of students creating high quality field-based artifacts.

From our knowledge of the types of activities contained in our educational administration course syllabi, we were aware that students frequently chose artifacts that were of lesser quality or were less effective in documenting their content knowledge and skills even though they had completed more authentic activities in their courses. The self-selection feature, while permitting students to embrace their showcase portfolios as personal learning tools, did not provide sufficient structure for the faculty to use the portfolio as evaluation tools for the ISSLC standards.

Curriculum Alignment Issues

The content analysis confirmed our informal formative observations from the students' oral examinations: There was a certain amount of content overlap within the courses, as evidenced by duplicated assignments, and there also were gaps in the curriculum. When developing our restructured principal preparation program in 1999, the faculty had created a curriculum matrix that cross-referenced the ISLLC standards and indicators within the 10-course structure in an effort to ensure curriculum content coverage. However, we had not fully analyzed the three elements of the curriculum alignment triangle—the formal, taught, and assessed curriculum. We also had not taken the subsequent steps of reaching agreement on our instructional methods and assessment practices. Consequently, these concerns were not unexpected, and the students' artifacts (and lack thereof) were very effective in illuminating both areas of content redundancy and potential omission of important content.

Intended Portfolio Type

In reviewing the overall format of most student portfolios, it became apparent that the faculty had not provided clarity that the purpose of the portfolio was for program assessment, as opposed to self-assessment. Consequently, the majority of students were presenting showcase portfolios although the faculty had intended for these dossiers to be evaluation portfolios (Gredler, 1996; Valencia & Calfee, 1991). More structure was needed to the portfolio, which would necessarily limit students' freedom to self-select from their array of work products. Because high quality artifacts were desired, students would need to be informed that they would be required to make necessary revisions to graded assignments to ensure that they were error-free.

Although each of our students received a handbook at the start of their program that explained the portfolio development process, one limitation of our current program was that the faculty did not assist students in continuous self-assessments of their artifacts. Their only opportunity to review and select their artifacts came at the end of the program if they chose to share this information with their faculty advisor a few weeks prior to the oral examination. Barnett (1995) explains that some students can become uncomfortable with a lack of direction regarding types of evidence to include in their portfolios. Clearly, time must be built into the curriculum structure for students to review their portfolio contents as a mechanism to assess their continued growth in the program and as an opportunity to guide students' self-selection of high quality artifacts.

ISSLC Standards and Gender Differences

Group means from the rubric scores related the six ISSLC standards disclosed that the students, as a group, scored below the basic level, the intended proficiency level for our students, on Standard 1 (vision of learning) and Standard 5 (acting with integrity, fairness, and in an ethical manner). An additional and unanticipated finding was that males' scores averaged below females on every rubric, and the male mean scores were below the basic level on Standards 1, 4, and 6, and for the use of references. Additionally, females averaged above the basic level of proficiency on every measure, with the exception of the "use of references" category. Because of this finding, we also examined the cumulative grade point averages (GPA) of males and females and determined that there was no significant difference in GPAs.

The literature is relatively silent on the issue of gender differences and portfolio quality; however, McCabe et al. (2000) reported that females were more likely to report that the portfolio was useful when applying for administrative positions, and they also viewed their internship experiences more favorably than males. This seems to agree with research that has found an ever-growing majority of women in higher education with higher achievement than men in certain fields, such as the social sciences (Jacob, 2002). Jacob (2002) attributes these findings to poor "non-cognitive" skills among boys, including the inability to pay attention in class, to work with others, to organize and keep track of homework or class materials, and to seek help from others. It is possible that females found more value in both their classroom and internship experiences which may have resulted in the selection of more appropriate portfolio artifacts. Because the preponderance of artifacts were written documents, another possibility may be that our female administrator preparation candidates are more skilled at these written exercises. In addition, females scored higher on the quality domains of organization, reflection quality, writing mechanics, and overall presentation, which may have subtly influenced the researchers' scores of their artifacts within each of the six standards. To the extent that the use of more authentic assessments in coursework and summative evaluations play a factor in the gender gap we discovered is beyond the scope of this study, but warrants further investigation considering the findings on gender gap achievement in higher education (Mortenson, 1999; Sommers, 2001).

In addition to the gender differences, a more significant finding emerged from the analysis of the artifacts but which did not become immediately apparent until we reviewed the rubric scores for each standard. We were attempting to assess students' competence by viewing the ISSLC standards as six separate and distinct entities, but our content analysis and rubrics disclosed the inherent difficulties in determining the most effective positioning of a given artifact within the appropriate standard. Consequently, the student's reflective explanation was critical so that the artifact could be placed in its appropriate context. In developing the ISSLC standards, the task force adopted as one of its principles the belief that "[s]tandards should be integrated and coherent" (CCSSO, 1996, p. 7). Instead of promoting an integrated approach to leadership, our faculty was inadvertently forcing our students to compartmentalize their learning activities into these six distinct areas. Noting the difficulties in developing an effective portfolio assessment process, Milstein (1996) asserts that many programs have struggled with this issue.

Principal Preparation Program Changes

Over the past two semesters, the portfolio review, as well as our informal observations regarding students' oral examination experiences, provided feedback that our graduates, although generally demonstrating content knowledge and skills mastery, could be more effectively prepared. Programmatic changes that we have already or plan to implement as a result of this program evaluation include: (a) grounding our program in a conceptual framework that promotes effective principals

as reflective leaders who support high quality schools that result in high levels of learning for every child; (b) working toward consensus on instructional practices and authentic assessments in each course; (c) standardizing clinical experiences; (d) imposing more structure on the evaluation portfolio; and (e) providing students with both formative and summative feedback on their portfolios through their program.

Conclusion

An important goal of portfolio assessment is to "alter the teaching and learning processes in the classroom" (Gredler, 1995, p. 436). Our faculty has utilized the program self-evaluation process to reach consensus on our curriculum, instructional activities, and assessments. The discussions that have occurred as a result of the portfolio analysis have helped us to more fully understand the interrelationships of our courses and their importance in assisting students' development of content and skills mastery. We are taking significant steps toward the development of a culture of collaboration, which is a departure from "the prevailing culture of individual autonomy of university faculty" (Bradshaw et al., 1997, p. 12). We have become more skilled in achieving curriculum alignment within our courses, and we also have assured that our students' clinical experiences are fully structured to address our curriculum content. Faculty discussions have provided us with an opportunity to share our pedagogical beliefs regarding teaching and learning and to more closely align our beliefs with our classroom practices.

The importance of self-evaluation for continuous improvement cannot be overstated. We are now using student portfolios for the dual purposes of documenting students' competence as individuals and for assessing the effectiveness of our preparation program. In our experience, portfolios have been invaluable tools to assist us improving program quality.

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