NCPEA

International Journal of Educational Leadership Preparation

Volume 8, Number 1 March 2013 A nationally refereed journal sponsored and published by the National Council of Professors of Educational Administration

NCPEA International Journal of Educational Leadership Preparation

Spring (March 2013) Volume 8, Number 1 ISSN 1532-0723

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Note from NCPEA Publications Director, Theodore Creighton

Beginning with this Volume 8, Number 1 (March 2013) issue of the *International Journal of Educational Leadership Preparation* (IJELP), we notify our authors, readers, reviewers, and the education community at large, that NCPEA will contribute this content to the Open Education Resources (OER) movement. This contribution to OER will be permanent and continue through the future.

In August, 2005, NCPEA partnered with Rice University and the Connexions Project, to publish our IJELP as open and free to all who had access to the Internet. Currently, there are over 400 peer-reviewed research manuscripts in the NCPEA/Connexions data-base. The purpose of the NCPEA/Knowledge Base Connexions Project is to "add to the knowledge base of the educational administration profession" and "aid in the improvement of administrative theory and practice, as well as administrative preparation programs." Our partnership continues but a new door has opened for NCPEA Publications to join the OER movement in a more substantive and direct way. In March 2013, NCPEA Publications and the NCPEA Executive Board committed the IJELP to the OER movement.

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Open Educational Resources (OER) are teaching and learning materials that you may freely use and reuse, without charge. Open Educational Resources are different from other resources an educator may use in that OER have been given limited licensing rights. That means they have been authored or created by an individual or organization that chooses to provide access to all, at no charge. NCPEA Publications is committed to providing access to all, while assuring author/s of full attribution as others use the material.

The worldwide OER movement is rooted in the idea that equitable access to high-quality education is a global imperative (and to NCPEA, a moral/ethical responsibility and issue of social justice). Open Educational Resources, or OER, offer opportunities for systemic change in teaching and learning through accessible content, and importantly, through embedding participatory processes and effective technologies for engaging with learning. The OER Commons project aims to grow a sustainable culture of sharing among educators at all levels.

What is the OER Commons?

The Institute for the Study of Knowledge in Education (ISKME) created OER Commons, publicly launched in February 2007, to provide support for and build a knowledge base around the use and reuse of open educational resources (OER). As a network for teaching and learning materials, the web site offers engagement with resources in the form of social bookmarking, tagging, rating, and reviewing. OER Commons has forged alliances with over 120 major content partners to provide a single point of access through which educators and learners can search across collections to access over thousands of items, find and provide descriptive information about each resource, and retrieve the ones they need. By being "open," these resources are publicly available for all to use.

What NCPEA OER is Not!!

NCPEA open educational resources are not an open door at the NCPEA Publications submission and review stages. We have always insisted on and will continue to require very thorough peer-reviews (double and often triple-blind). NCPEA Publications is fortunate to have a cadre of professional reviewers (university professors), numbering at approximately 400. Topic Editors first consider a submitted manuscript, and if appropriate content, selects/assigns two reviewers who also have the expertise/interest in the manuscript's specific topic. This process assures that an author's manuscript will be read by reviewers with expertise/experience in that area. The IJELP has an approximate acceptance rate of 20%. This current Volume 8, Number 1 has a 22% acceptance rate.

The "openness" of the IJELP OER comes at publication stage. Once the issues are published, (as this issue was March 1, 2013), it is formatted/published in an open access website, indexed by Education Resources Information Center (ERIC), catalogued as a "commendable journal" in the Cabell's Directory, and provided to the Open Educational Resource database. The IJELP is currently viewed and read by educators from over 72 countries (many 3rd World) and all 50 U.S. States (data provided by Google Analytics).

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The manuscripts in Volume 8, Number 1 (March 2013) have been peer-reviewed, accepted, and endorsed by the National Council of Professors of Educational Administration (NCPEA) as significant contributions to the scholarship and practice of school administration and K-12 education



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Prevalence of Evaluation Method Courses in Education Leader Doctoral Preparation

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This exploratory study investigated the prevalence of single evaluation methods courses in doctoral education leadership programs. Analysis of websites of 132 leading U.S. university programs found 62 evaluation methods courses in 54 programs. Content analysis of 49 course catalog descriptions resulted in five categories: survey, planning and implementation, research and inquiry, leadership and school improvement, special approaches, and original student research. Most often elective and outside the required curriculum, evaluation methods appear to hold a consistent but secondary place in doctoral leadership training, despite its applicability in education.

INTRODUCTION

Research shows that effective school leadership results in more successful students, and that worldwide, school systems seek leaders with skills to handle the multiple responsibilities of using data, informing decisions, and making assessments to ensure programs benefit learning especially at the local or site level (Darling-Hammond, LaPointe, Meyerson, & Orr, 2007; Lauer, 2006; Pont, Nusche, & Moorman, 2008). Yet, relatively few studies have investigated research course content (Bustamante & Combs, 2011; Huck, 2008), and even fewer have examined evaluation methods training in preparation programs (Shepperson & Fierro, 2010). Pragmatic in nature, evaluation seems valuable to administrators who make decisions about the utility, effectiveness, and consequences of programs. In an era of accountability and databased decisions, assessment, and evaluation would seem important content in the professional preparation of education leaders.

Therefore, empirical study to examine the scope of research training and specifically the inclusion of single courses in evaluation in education leader preparation is warranted. This study sought to address this gap by analyzing evaluation course titles and descriptions in education leadership doctoral programs across the United States. Course offerings were explored in 132 doctoral programs at research universities and colleges in 43 states and the District of Columbia. In all, a total of 62 course titles, and 49 catalog course descriptions, from 54 programs were analyzed. Implications of findings allowed conclusions about the relevance or importance of evaluation methods in education leadership preparation programs.

NCPEA International Journal of Educational Leadership Preparation, Vol. 8, No. 1– March 2013 ISSN: 2155-9635 © 2013 National Council of Professors of Educational Administration

LITERATURE AND BACKGROUND

Educational Evaluation Defined

Evaluation is a broad field within applied social science in which practitioners collect, interpret, and communicate information to improve the effectiveness of institutions and programs (Rossi, Lipsey, & Freeman, 2004). Iconic definitions include Scriven's (1967) description of evaluation as a systematic process to determine the quality or value of a program or product. Practitioners display a range of methods, and work within multiple arenas, but retain the overarching goal to make programs work better to solve social programs through an idealized sequence of recognizing a problem, applying alternative solutions, evaluating new approaches, and adopting those that seem most suitable (Shadish, Cook, & Leviton, 1991). Working in multiple fields, evaluation has expanded with training programs, professional associations, research and practitioner journals, and codes of professional practice guiding evaluation's growing position as a profession (AEA, 2012; Shadish, 1998).

Educational evaluation in the United States is largely derived from the growth of the federal role in education which is marked with the 1965 passage of the *Elementary and Secondary Education Act*, in response to federal policies for monitoring and assessing student performance, and the expanded role of state and district education offices to manage assessment information. Supported by *Phi Delta Kappa*, The National Study Committee on Evaluation produced a watershed report acknowledging the inexperience of school administrators and university professors in evaluation and providing a detailed discussion of evaluation approaches for education (Stufflebeam, Foley, Gephard, Guba, Hammond, Merriman, & Provus, 1971). These single method approaches have been built upon at least in part by expanding accountability requirements and the current Office of Educational Research and Improvement's (OERI) gold standard for experimental and quasi-experimental education research (Rudalevige, 2009).

Accountability and its growing national and global trend represent a large portion of educational evaluation. Yet, schools regularly conduct small scale evaluations to solve localized and immediate problems (Greene, 1994; Mertens, 2008; Stake, 2010). This has led to some innate tension between the science of measurement and more culturally sensitive, participatory, and natural methods (Ryan & Cousins, 2009). Christie and Klein (2009) argue that standardized accountability need not preclude local decision-making. Rather, habitual accountability may breed a climate of review and reflection, increase evaluative practice, improve a school's capacity to self-assess, and ultimately advance achievement (Ryan & Feller, 2009).

Evaluation in Education Literature

Evaluation researchers publish on educational topics and in educational journals. Heberger, Christie, and Alkin's (2010) bibliometric study found that educational evaluation retains an influential position within education literature. When randomly sampled, the cited references from nine evaluation theorists (Campbell, Rossi, Weiss, Stufflebeam, Patton, Preskill, Scriven, House, and Eisner) totaled 3,791 articles of which 866, (22.8%) fit within the category of education and educational research. Among the top 22 journals in which these select evaluation theorists published, a total of nine were educational journals, including *Phi*

Delta Kappan, Journal of Teacher Education, Journal of Educational Measurement, Alberta Journal of Educational Research, Teacher College Record, Curriculum Inquiry, and Journal of Aesthetic Education, and two on education leadership, Educational Administration Quarterly, and Educational Leadership.

Teaching Evaluation in Education

Research on teaching evaluation within education programs is limited in scope and depth and much is extrapolated from cross disciplinary studies. A 1986 issue of New Directions for Program Evaluation was devoted to the teaching of evaluation across many disciplines including education where it most often related to behavioral testing and measurement in departments of Educational Psychology (Sanders, 1986). Elsewhere, program evaluation courses were found across disciplines, generally focused on introduction to the discipline, design and methodology, and planning and implementation (Connors, 1986; Davis, 1986, Kronenfeld, 1981; Sanders, 1986). Delivery remained largely lecture-based, sometimes incorporating practicum or role-playing experiences, but usually limited to one stand-alone course (Alkin & Christie, 2002; Fierro, n.d.; Trevison, 2004). Learning outcomes were generally limited to the level of informed consumer rather than proficient user, perhaps with the intention that awareness might translate into later professional practice (Donaldson, 2007; Morris, 1994), and in keeping with the notion that professional training, especially at the graduate level, involves learning what Golde (2007) calls "disciplinary norms and identities" (p. 344) more than in-depth understanding of evaluation (Stevahn, King, Ghere, & Minnema, 2005). This precedence suggests evaluation was to varying degrees integrated into discipline content, and that single course offerings remain a viable unit to measure the prevalence of evaluation training within academic programs.

Recent work by LaVelle and Donaldson (2010) points to a strong association between evaluation training, schools of education, and university-based graduate programs in evaluation. The authors found web-based evidence of 48 institutions offering at least two courses in evaluation at the graduate level, with 35 of these offering a specialization or concentration in evaluation. A majority, 29 (60.4%) of these were located in schools of education, of which two were leadership programs. Those departments within schools of education with evaluation programs mainly conferred doctoral degrees, including 36 with PhD and 4 with EdD degrees, with one education specialist (EdS) and five master's (MEd or EdM) programs. While these associations may not directly indicate evaluation training for students in educational leadership, it does suggest a continued relationship of evaluation, psychometrics, research, and graduate education programs.

Education Leader Preparation

There are estimated to be nearly 600 doctoral education leader preparation programs in the United States (Berry & Beach, 2009; Shoho, 2010). Many programs suffered reputations as neither scholarly nor providing the practical skills needed by those who would run schools, districts, and state agencies. Arthur Levine's (2005) well publicized indictment of educational administration as a field "rooted neither in practice nor research, offering programs that fail to prepare school leaders." (p.61) was one among many criticisms of a preparation system that was considered at least partly to blame for the poor performance of American public schools

(Baker, Orr, & Young, 2007; Fullan, 2007). Historically, leading school administration journals showed few investigations into leadership preparation (Murphy & Vriesenga, 2004). That has changed and recent preparation research has focused on practitioner training and competencies, including alignment with the Interstate School Leaders Licensure Consortium (ISLLC) and the Education Leadership Constituent Council (ELCC) standards for Accreditation of Teacher Education (NCATE). Leadership research, growth of professional organizations, development of standards, and preparation needs had largely benefitted from major foundation support, which has been prevalent since the 1950s (Murphy, Young, Crow, & Ogawa, 2009; Milstein, 1993; Orr, Cordeiro, Thome, & Martinez, 2010).

Standards for educational administrators from the Interstate School Leaders Licensure Consortium (ISLLC), represent an internal process that Murphy (2003) referred to as "reculturing the profession" (p. 5) from the 20th century school management model into a contemporary profession focused on students, learning, and teaching (Donaldson, 2001). The ISLLC standards suggest competencies that could be construed as evaluative, including data-based decision making, instructional assessment, assurance of effective management and safe environments, and responsiveness to community interests (ISLLC, 2008; Wright & Gray, 2007). Two examples include under Standard 1, Performance, that states that a school administrator should ensure that "the vision, mission, and implementation plans are regularly monitored, evaluated, and revised" (ISLLC, 2008). Under Standard 2, Performance, it reads that a school administrator has knowledge and understanding of "measurement, evaluation, and assessment strategies" (ISSLC, 2008). The term evaluation is only listed five times in the document. Although it is only occasionally explicitly stated, the ISLLC standards indicate evaluative competencies for effective school leaders and therefore imply their presence in preparation.

Other research centered on redesign of doctoral programs includes redesigned programs which are better suited to practitioners (Jean-Marie & Normore, 2010; Walstrom, Louis, Leithwood, & Anderson, 2010). These are found at a growing number of higher education institutions, sometimes through the *Carnegie Project on the Education Doctorate*, which seeks relevant curriculum and clinical experiences, and a more explicitly divide between scholarly pursuit of a dissertation and a PhD from experiential problem-solving and an EdD practitioner degree (Jean-Marie & Normore, 2010; Shulman, Golde, Bueschel, & Garabedian, 2006).

Gap in Literature

Studies in education leadership competencies and preparation rarely involve discussion of applied evaluation methods. Absent from existing literature is a clear picture about evaluation training as a skill to assist leaders in making or supporting decisions (Shadish, 1994). No information was found in the review of literature about the prevalence of or the frequency with which students completed single courses of evaluation within preparation programs for education leaders. Empirical studies that systematically examine curricula within school leadership programs most often focused on master's degrees, the customary degree for district and site administrators. The existing literature describes an environment within education that promotes training for evidence-based decision making to inform classroom, school, and system level practices accelerated by accountability policies under *No Child Left Behind* and *Race to the Top* legislation. Administrator credentialing and university program accreditation

standards hint to but do not specify that evaluation competencies are required outcomes of preparation programs, despite the predominance of graduate programs in evaluation within colleges of education and occasionally within departments that also train education leaders.

THE STUDY

The study was based on a line of thinking that doctoral education leader preparation programs teach practitioners to use data to ensure effective education programs, problem-solve on school and systems levels, and understand the impact of policy on practice. No matter how minute the differences, evaluation training provides competencies and knowledge useful to school leaders, and it is likely that at least some programs would include single courses in evaluation methods in their program of study. Just as other research courses present skill sets and reinforce scientific habits of the mind, evaluation courses also equip graduates to act as informed consumers; provide strategies for assessing outcomes, impacts, or costs of programs; and ensure some level of proficiency to use data for decision making.

Four principal research questions guided this inquiry:

- 1. To what extent are single courses in evaluation prevalent in education leader doctoral programs?
- 2. How likely are students to take an evaluation course in a doctoral program?
- 3. What course content is evident from course titles?
- 4. What course content is evidence from catalog descriptions?

Sample Selection

Institutions were initially identified through the Carnegie Foundation for the Advancement of Teaching as high or very high research doctoral-granting institutions. They were cross referenced against Educational Administration and Supervision programs listing in the Integrated Postsecondary Educational Data System (IPEDS) College Navigator search engine of the National Center for Educational Statistics (NCES). Six categories of programs related to education leadership within the College Navigator drop-down were reviewed for inclusion in the study. Category headings included *administration*; *elementary, middle, and secondary principalship*; *superintendency and systems administration*; and *urban education leadership*. To verify program status, further university, college, department, and program website searches provided specific program titles, verification of active status, doctoral degree type (PhD or EdD), and additional confirmation of PK-12 administrator focus. Cases in which website information was inconclusive, phone calls were made directly to departments or registrars to ensure a focus on PK-12 administration at the doctoral level.

The search resulted in a total of 132 programs, located in 43 states and in the District of Columbia. Programs were defined as a series of courses, seminars, practicum, and other requirements that prepared a student for school administration positions in PK-12 settings and led to a terminal degree. Although not restricted to practitioner preparation, programs needed to include a PK-12 administrator track. Of these, 67 offered Doctorates in Education (EdD), 39 granted Doctors of Philosophy (Phd), 26 offered both EdD and PhD options, and one institution, Harvard University offered both an EdD and an Educational Doctorate in Leadership (EDLD). Programs excluded were those solely geared to higher education; those not currently accepting applicants or discontinued; distance or online programs managed by

continuing education; programs in leadership outside the field of education (*organizational leadership*, *non-profit management*); or, programs or concentrations tangential to school leadership (including *measurement and statistics*, *curriculum and instruction*, *educational technology*, *elementary and secondary education teaching*, and subject-specific teaching).

While Educational Leadership was the first and Educational Administration the second most prevalent title, other common program labels included: Administration of Elementary and Secondary Education, Administration and Policy Analysis, Administration and Supervision, Educational Foundations and Leadership, among others. While it is feasible that graduates from other programs take administrative roles, the central purpose of those programs was not preparation for administrator training. Rather, focus of the study was on programs described as preparing students for practitioner positions at school, district, state, or federal levels.

Data Management, Collection, and Analysis

To identify existing evaluation courses, institution, department, and doctoral program websites were searched and online documents mined to examine programs of study. Three major data sets were delineated from online searches and review of programs of study. All 132 programs were reviewed for evidence of single courses in evaluation, based on the presence of the word evaluation in the title. Courses solely oriented to personnel or teacher evaluation procedures or policies were not included as outside the parameters of this study. Lists of courses, programs of study, and department websites also were scrutinized for the extent to which the course was required, elective, or optional. Microsoft Word and Excel, and Wordle word cloud technologies were used to aid data management and analyses (McNaught & Lam, 2010). For this study, the procedures served as worthwhile strategies to recognize patterns of evaluation training in education leader doctoral programs.

Because a major goal of the study was to identify the relative importance of evaluation courses within the doctoral programs, in all cases possible frequency analysis was completed, under the assumption that a course considered valuable would more often be found in programs of study. Additionally, content analysis included development of categories of courses that also were counted to establish the relative presence of certain content over other. Once course titles and catalog course descriptions were transferred into an Excel spreadsheet, they underwent content analysis using multiple cycle coding. For both titles and descriptions, first cycle initial and theme coding was first used to categorize entries. For catalog descriptions, second cycle focused coding was used to distinguish major content elements (Saldana, 2010).

Study Limitations

Websites were the primary data source, although follow-up phone and/or email verifications were made in a few cases to obtain course catalog descriptions when not navigable online. Online data searches have increasingly become an alternative method to records and document data collection (LeVelle & Donaldson, 2010). Advantages to web-based research include ease of collection, availability of descriptive and frequency data, access to contextual information, and cost-efficiency (Russ-Eft & Preskill, 2001). Disadvantages include time constraints, inaccessibility of some data, incomplete representation of programs, and sample

limitations dependent on individual program web presence. Another disadvantage particular to this study was the fluctuating nature of website redesign and updates. This data must be considered particularly time-sensitive. Collected in early Spring 2010, updates in websites and changes in program curricula will have occurred since the study, thus placing limits on ability to replicate and current accuracy. However, point-in-time research provides a useful first step to identifying the prevalence of stand-alone courses and perceived importance of evaluation as a competency in doctoral education leadership programs.

FINDINGS

Finding 1: Prevalence of single evaluation courses

Of the 132 leadership programs investigated, fewer than half, or 54 (40.9%) had evaluation methods courses. In all, 49 (90.7%) programs were found to have just one evaluation methods course, although five programs (9.2%) listed two separate courses, and one program (1.8%) had a three course sequence entitled educational research and evaluation.

Finding 2: Likeliness of students to take evaluation courses

In 54 programs, a total of 62 evaluation courses were identified and program websites were investigated to see whether the courses were required. The smallest group, 16 (25.8%) were required courses in the program of study. Another 18 (29%) appeared to be electives among a short list of possible selections with at least a 50% chance of being selected. The largest number, 28 (45.2%) appear to be optional, one among many possible program elective courses. Required courses were usually found in online brochures or programs of study, within a list of courses to be taken. Elective evaluation courses were on a list of electives that indicated a reasonable chance of selection, for example one of six elective courses in which three courses must be taken. More commonly, evaluation courses were listed among a long list of electives or other class options statistically far less likely to be selected, for example a list of six course electives in programs in which students might normally select only one or two courses or substitute other options.

Finding 3: Course content and titles

In general, course titles specified education, administrative functions, or research. The evaluation courses most often specifically referred to education, schools, learning organizations, or curriculum in 37 (59.7%) of the cases. Besides a focus on education, the titles were organized into three categories as shown in Table 1. Of the 62 courses, the largest group of 25 (40.3%) titles included the words program evaluation, with headings such as Curriculum and Program Evaluation, Educational Organizations and Programs, and Implementation and Evaluation of Programs. A group of 21 (33.9%) courses were categorized as administration courses with varied titles, such as Administrative Decision Making; Planning, Research, Evaluation for School Leaders; and Evaluation of Educational Products and Systems. A smaller third group of 16 (25.8%) titles were research courses, with titles such as Evaluation Research and Measurement, Evaluation Models and Techniques, or Methods of Evaluation.

Those titles that mentioned research, methods, models, or design, were generally less clear about the type of research, although quantitative research and statistics were suggestive for five (8.1%) courses which had the words measure or measurement in the title.

Table 1
Content Analysis of Evaluation Course Titles

Theme	n	%	Example Course Titles
Program Evaluation	25	40.3	Educational Program Evaluation
			Program Planning and Evaluation
Administration	21	33.9	Evaluation in Educational Administration
			Systematic Evaluation
Research	16	25.8	Evaluation Research & Measurement
			Evaluation Methods
(n=62)			

Finding 4: Course content and catalog descriptions

Of the 62 identified evaluation courses, catalog descriptions for 49 courses were located, analyzed, and coded into the following themes: (a) survey to familiarization of approaches and uses, (b) designs to plan and conduct evaluations, (c) evaluation as research and inquiry, (d) evaluation for leading and improving educational institutions or programs, (e) specialized approaches in evaluation, and (f) original student evaluative projects. As shown in Table 2, the largest group, 17 (34.7%) focus on broad familiarity with evaluation models and uses in education. The second largest category of courses, 10 (20.4%) provided instruction on planning and conducting evaluations. Another 6 (12.2%) courses were oriented to using data to make decisions in educational institutions. Another 8 (16.3%) courses mentioned research and inquiry and both quantitative and qualitative methods in evaluation. A small group of 5 (10.2%) courses were labeled specialized approaches. Two Louisiana institutions mentioned state certification guidelines focused on the standards adopted by national professional evaluation organizations. Another two referenced organizational behavior and environmental and political influences. One institution's course focused on international education policy, monitoring, and evaluation. The smallest category 3 (6.1%) of courses specified independent student projects or completion of an original program evaluation.

Among the 49 course descriptions analyzed, there were a few mentions of specific evaluation strategies, including systems theory, needs assessments, performance measurements, or school self-studies. In no case did a course description focus entirely around politics and policies, although it was mentioned in two cases. There was only one instance that varied school stakeholders and local communities were indicated. In several cases, experimental, quasi-experimental, and statistical analyses were targeted. Only once was the term accountability found in course descriptions. Interestingly, there appeared no link between practical application courses and EdD programs or between more theoretical content and PhD programs.

Table 2
Content Analysis of Evaluation Catalog Course Descriptions

Theme	Example Descriptions from Catalog	Frequency
Survey, Overview	"reviews theories,designs, analysis, current trends" "introduction to concepts, approaches, techniques" "history, state of the art, frameworks"	17 (34.7%)
Plan, Conduct	"knowledge and skills to plan and conduct" "emphasis on needs assessment, school self-study" "charting course, assessing progressdesired outcomes"	10 (20.4%)
Research, Inquiry	"emphasis on quantitative methodology" "naturalistic and empirical methods and procedures" "action researchempirically evaluating"	8 (16.3%)
Lead, Improve	"use data for decision-making purposes" "enable administrator to develop, implement, evaluate" "application to educational progress"	6 (12.2%)
Specialized	"affect organizational behavior, ethical considerations" "meet standards of National Joint Committee" "environmental practical factors influencing design"	5 (10.2%)
Student Projects	"student develops and carries to completionstudy" "design, conduct, report a real program evaluation" "prepare and present designs or program evaluation"	3 (6.1%)
(n = 49)		

DISCUSSION

This exploratory study was designed in response to the growing interest in reforming preparation programs to better prepare education leaders. In this study, classic content and frequency analyses was combined with web-based technology searches to investigate the actual level of importance of courses in evaluation within leading doctoral programs, nationwide. Programs of study, course titles, and catalog descriptions all provided meaningful information to begin to understand whether the professionalization of evaluation, growth in accountability requirements, and interest in real world applicability of leadership preparation was shown by the extent of evaluation training in leadership doctoral programs.

The discovery of single courses in about half of the doctoral programs investigated suggests that overall evaluation is not a core focus. That half of the programs offered evaluation, however, indicates that evaluation was considered viable and valuable in

education leadership training. While the perceived importance of evaluation methods in specific programs remains unclear, patterns emerging from the data suggest that evaluation appears to be rather consistently taught among doctoral programs in education leadership, although not universally required.

In education, it is difficult to define evaluation, whether the actual processes are assessing student outcomes, appraising teacher performance, analyzing instruction or curriculum, distinguishing program outcomes, or reviewing school milieu (i.e. climate surveys). Evaluation is a term that may reflect any or all of these activities and more (Schwandt, 2009). Therefore, it is not surprising that about half of the education leadership doctoral programs investigated had courses including the term evaluation. Closer examination of both course titles and catalog descriptions supports the somewhat amorphous application of evaluation methods in education. Titles seem nearly evenly divided among evaluation of programs, administrative uses, and research perspectives. Catalog descriptions leaned towards general survey courses with a broad smattering of other learning objectives, most with clear educational foci. In this sample of education leader preparation programs, evaluation courses are about linking inquiry to feedback on school and classroom functions and outcomes.

Results from this study are pertinent to research on education leader preparation and reform. The discovery that many programs offered at least one evaluation course, usually related to issues in education, and sometimes decision making and research, indicate that evaluative competencies found in other professional and clinical fields may also relevant in education (King, Stevahn, Ghere, & Minnema, 2001). Future studies may seek to delve more deeply into syllabi, texts, and class assignments to better understand course objectives, and whether evaluation is situated more around collecting information, following existing accountability requirements, or making administrative decisions. Of key interest would be whether courses are similar to those investigated in the 1980s, more about informed consumer than skilled user, or if courses reflect current accountability and administrative realities. Also, this study did not link evaluation courses with other research and method courses or with the entirety of programs of study which might explain more clearly the place of evaluation content within preparation programs.

Other implications for future research include a need to sample programs through varied lenses. With the current criticism that preparation is not meeting the needs of on-the-job practitioners, the intense national climate of accountability, and the perception that school leaders play a vital role in refurbishing American education, it seems that evaluation offers some tools useful to future education leaders, but the convention that evaluation is taught as a single or series of single courses somewhat adjacent to the main curriculum appears to hold true. Future studies of newly redesigned programs, could serve to better understand the actual content and learning objectives.

It is not only leading research universities and those involved in foundation-supported programs that are revamping programs of study for education leaders, many public, private, and for-profit institutions increasingly focus degree and certification programs on professional skills and clinical experiences. The bulk of practitioner training takes place at regional and other institutions, many of which have practitioner programs focused on real world application more than traditional academic structure. A look at regional universities, private institutions, and other programs that train practitioners may reveal different results from those as leading academic institutions.

The proximity to strong evaluation and psychometric concentrations might provide interesting comparative case studies into whether evaluation competencies are more keenly integrated in institutions or colleges of education with a psychometric training history. These more selective studies may reveal underlying beliefs, context, and content of evaluation courses and provide information about what institutional or programmatic characteristics and influences lead to inclusion of evaluation in doctoral programs.

Accountability overshadows current discussion of educational evaluation. We are in an era when educational policies require school leaders to collect and analyze information to be used to monitor and improve educational programs. There is a public call and increased professional scrutiny for graduate programs in education leadership to produce candidates with these evaluative competencies. Understanding how leading doctoral programs interpret the need for evaluation methods courses offers a valuable piece in understanding what skills are taught and considered important as programs evolve and produce future school leaders.

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Answering the Sustainability Question: A 3 Year Follow-up Report on a Wallace Foundation Training Grant Program and What Did Participants See as Important?

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In July 2008, Riverbend Public Schools (RPS) in Western Michigan and Grand Valley State University (GVSU) received a grant from the Wallace Foundation that supported the development of a specialized educational leadership program. The project was designed to customize an existing degree program in the university's College of Education, focusing on leadership skill sets for urban school leaders. The project, titled the "Aspiring Leaders Program," allowed 34 urban teachers and new principals to obtain a master's degree in educational leadership or an educational specialist degree in educational leadership with special expertise in urban schools. The program ran from November 2008 through the fall semester of 2009. In the late fall of 2009 and again in 2012, follow-up studies were conducted to determine if this customized program had benefited the participants and if they continued to use the skill sets they had been taught. This study describes the 2012 three-year follow-up study and discusses its results.

BACKGROUND

The funding source for the original project was the Wallace Foundation. Based in New York City, the Wallace Foundation is a national philanthropy that seeks to improve education and enrichment for disadvantaged children. The foundation has an unusual approach: funding projects to test innovative ideas for solving important social problems, conducting research to find out what works and what doesn't, filling in key knowledge gaps, and then communicating the results to help others (Wallace Foundation, 2013). Hence, the foundation has a major interest in urban education initiatives.

RPS is the largest urban school district in West Michigan. Typically, 85.2% of its students qualify for free and reduced lunch status. Minority students make up 86% of its student body. The administration of RPS was an enthusiastic partner in this project. Their goal was to have a pool of highly trained principals they could place in leadership positions throughout their school district. GVSU has had a long history of partnering with RPS on a wide variety of training projects, and the university's commitment to urban education made it a logical choice for this project. Thus, the stars aligned and the Wallace Foundation, GVSU, and RPS formed a grant-funded partnership to train a cohort of specially chosen urban educators in educational leadership.

NCPEA International Journal of Educational Leadership Preparation, Vol. 8, No. 1– March 2013 ISSN: 2155-9635 © 2013 National Council of Professors of Educational Administration

While some Wallace Foundation grant-funded training programs across the country have relied heavily on existing university coursework, GVSU took a different approach. As Angelle, Wilson, and Mink (2011) have noted, "With heightened emphasis on school leadership and the call for greater accountability, leadership preparation programs must evolve to meet the needs of today's principals" (p. 39). GVSU acknowledged this challenge to meet the needs of today's leaders, especially urban principals, and took a bold step in customizing a degree program for them.

The Program

As GVSU officials and RPS administrators began planning the program in the late summer and early fall of 2008, they felt it was important to select university professors who had administrative experience in large urban K-12 settings. It was also recommended that a team of three professors collaborate to develop classroom experiences that integrated theory and practice. The three professors chosen had significant urban leadership backgrounds. One was an experienced director of special education, one had served as a high school principal, and the third had been a principal in both elementary and middle schools. All three professors had doctoral degrees with a strong emphasis on integrating theory and practice into authentic work, and all were thoroughly trained in systems thinking and change processes.

The 34 program participants were selected in fall 2008 by RPS officials based on their demonstrated leadership ability and the likelihood that they would be chosen as a principal within the school district. While they were all urban educators, the 34 individuals had different backgrounds and held a wide variety of positions throughout the district. The cohort included four principals, five assistant principals, a dean of students, a math coach, a language coach, a curriculum coordinator, a school reform specialist, a public safety officer, a youth advocate, a physical therapist, and 17 classroom teachers. Sixteen of the 34 participants were female, and 18 were male. Their experience in education ranged from three to 27 years. Nearly all had spent the majority of their professional educational careers in the RPS school district. As a cohort, some of the participants knew other members of the group, but most had only a passing knowledge of the other members' professional assignments or personal lives. It was obvious to the team of professors that camaraderie needed to be developed for risk-free sharing of experiences to occur.

A customized degree program and accompanying planned program was developed for each participant in the Aspiring Leaders Program. This process began with individual interviews. Participants were asked questions such as, "What do you feel will be your biggest challenges as an urban principal new to the position?" The program development team then took each participant's input, correlated his/her needs with state standards and school district goals, and developed a degree program that contained the skill sets projected to be needed for career success (see page 9 for program overview and literature review).

As part of the customization process, the GVSU professors also created a classroom delivery system that integrated research with authentic applications. A typical class session would include a review of the literature with a case study. Students were asked several open ended questions about the problem presented in the case study and then worked on solutions in groups. This was followed by discussion, typically in Socratic style, with a lively interchange about solutions to the problem. Below is a sample planning matrix that the professors used as a road map to providing the information that the participants saw as

important. The matrix also provides direction on planning, classroom activities and assessment.

ASPIRING LEADERS INSTRUCTIONAL PLANNING Prepared by Dr. Michael Stearns 3/4/09

Focus Area/Standard	What do we want candidates to know: Competencies	Resources	Activities	Time	Assessments	Ed. Spec. Research
Standard 1.4b Vision Stewardship use of data	Data collection methods, understanding student performance data, using data to assess progress toward the district's mission	Sample ACT chart paper GRPS mission statement The Data Wise Improvement Process— Article from The Harvard Newsletter	Discuss expectations for students Take sample ACT Process results Discuss how to use testing data to plan for instructional support	2 hrs.	Group plans Candidate reflection paper	Research Data Trends of a targeted school & design a long term intervention plan–refer to Effort Based Ed.
Standard 2.4a Designing comprehensive growth plans	Knowledge of adult learning strategies Use of authentic problems and tasks, to generate new problem solving skills	List of "high priority" issues currently faced by principals in GRPS NCREL— Balanced Leadership— Marzano et.al.	Article on adult learning—jigsaw Application of problem solving techniques to current challenges	2 hrs.	Individual growth plan highlighting learning PD needs	Explore the issues of adults as learners with a focus on generational issues. 10 pg. paper required

Classes began during winter semester 2009 and continued through the spring/summer and fall semesters that calendar year.

Follow-up Studies

In late fall 2009, when most of the participants had completed the majority of their core courses, they were interviewed as part of a formal research project analyzing the program.

Then a three-year follow-up survey was developed in 2012 and sent to all of the participants from the original Aspiring Leaders Program who were still employed by the school district.

To understand the importance of this 2012 follow-up study, one must consider the context in which the original cohort of participants worked. They were teachers or newly appointed administrators in an urban system. As urban educators, they faced many challenges. According to Voltz (1998), the challenges that have the greatest impact on the education of urban youth include poverty, violence, home-school communication, teacher preparedness, cultural incongruence (e.g., predominantly white faculty teaching predominantly students of color), relevant curricula, and diversity awareness. The original Aspiring Leaders Program sought to give the participants skill sets that would equip them to deal with these challenges.

The initial interviews in 2008 with the participants had indicated their concerns. These included, in order of perceived importance:

- 1. Implementing a vision
- 2. Conducting teacher evaluations
- 3. Conducting productive meetings
- 4. Understanding the dynamics of change
- 5. Resolving conflicts
- 6. Understanding generational differences in staff
- 7. Dealing with diversity issues (e.g., race, age)

Because the participants were degree-seeking students, the professors had to account for official state standards as they customized the participants' individual courses of study. With all of these competing requirements and perceptions, the first follow-up study in fall 2009 sought to determine whether the skill sets taught actually addressed the participants' primary concerns. The 2009 study also attempted to determine if they were beginning to use the administrative skill sets they had learned. The responses from the participants in the Aspiring Leaders' Program were overwhelming positive. The participants felt the program did indeed prepare them for roles as principals. Determining if this positive response continued and participants were indeed using the skills taught in the program in their current positions answers the question of sustainability in this training program. Thus, it was clear to the professors/researchers that the 2012 follow-up study must focus on the same areas to make a comparison possible and determine sustainability.

Purpose

The goals of the 2012 follow-up study were to: (a) determine which skill sets were most useful to the cohort members, (b) determine if the skill sets mastered in the 2008-2009 program were still being used by the participants in their current professional roles, and (c) provide examples of leadership strategies that could be utilized by current school leaders and professors of educational leadership who are training future urban school leaders.

Theoretical Framework

The professors relied on 3 theoretical frameworks to ground their work with the Aspiring Leaders Program. They included: 1) change theory, 2) leadership theory, and 3) adult

learning theory. The work of Wagner (2006), Senge (1990), and Fullan (2001) was reviewed and shared with the participants. Participants designed a "preferred future" and assessed the current reality in a selected school. They discussed the issues of "mental models," "team learning," and "moral purpose." One of their final assignments was to create their own theory of change. In preparing the participants for leadership roles, they discussed the components of leadership theory (Northouse, 2007) including: transformation leadership and authentic leadership. The professors agreed they needed to have a deep understanding of adults as learners to be highly successful with the cohort group. Knowles, Holton III, and Swanson note that "Adults are interested in their learning when they perceive that it will increase their ability to deal with problems that they face in their work situations (2005)." Authentic situations and problems solving activities became the model of classroom work as the participants came to believe in their ability to solve problems.

METHODOLOGY

Survey and Respondents

To determine if the skill sets contained in the original customized training program were useful and still being used three years later, a qualitative survey was designed to gather input from the program participants. The survey was sent via mail or e-mail to 24 of the 34 original participants; 10 of the 34 had left the school district.

The survey included the following 10 open-ended questions:

- 1) Discuss how your knowledge of the dynamics of change has benefited you in your role as principal.
- 2) Describe the specific coaching and evaluation tools your have used with your staff.
- 3) How have you used your previous experience in developing a vision speech in your current work assignment?
- 4) What are the specific coaching and evaluation tools that you have used with your staff and how have they been helpful in improving teachers' classroom delivery?
- 5) What generational issues have your encountered?
- 6) Describe how you begin your staff meetings to ensure success.
- 7) How have you relied on the conflict resolution skills taught in the Aspiring Leader's Program?
- 8) What skills and knowledge that you learned have contributed to your ability to do your current assignment?
- 9) How and in what ways did the ongoing availability of the professors provide you with additional supports and skill development beyond the timeframe of the program?
- 10) What learning experiences did you count as most valuable from the Aspiring Leaders' Program that prepared you to be an urban school leader?

In essence, the survey was trying to ascertain the answers to some basic program questions. What aspects of the coursework and informational presentations were still being used by the participants as they moved into their professional leadership roles? Which of the skill sets, if any, had become integrated into their everyday leadership practices?

Responses were received from 12 of the surveyed participants (35%). Three of the respondents were male, and nine were female. One respondent was a fourth-grade teacher

with additional responsibilities as a building leader. Nine were principals, and two were assistant principals. Ten of the respondents had finished their degree; two were still in process. The respondents' demographics represented a fair sample of the original cohort. This made a comparison of the responses from the 2009 study and the follow-up (2012) study possible.

The researchers believe that the exceptionally positive rate of survey return (35%) was directly linked to ongoing support offered during the previous three years. The GVSU professors who taught in the program have maintained working relationships with the original program participants. Thus, they were able to encourage the participants to respond to the survey.

Analysis

A qualitative analysis of the returned surveys was completed by an independent research consultant hired by the university. This analysis led to a qualitative report that correlated the original cohort's data and the skill sets covered in the original program with the responding participants' current practices. Triangulation of data was possible through a review of original program documents, including a standards/class activity matrix and daily classroom feedback sheets. Below is an excerpt from the course evaluation with comments from the participants:

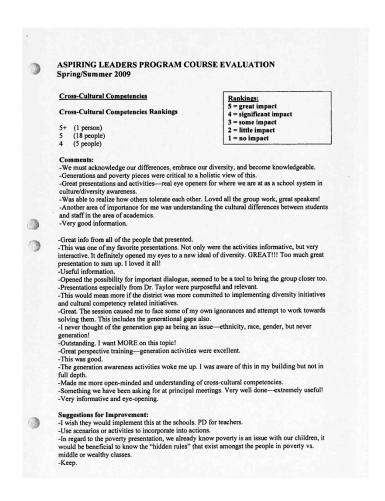


Table 1. Aspiring Leaders Program Overview/Literature Review

Skill Sets Taught and Mastered	Research / Theoretical Basis	Tasks	
1. Developing, presenting, and implementing an effective vision for schools	Kouzes, J., & Posner, B. (2002, 2003)	Students were required to create and present a vision statement to their school staff	
2. Using and analyzing data to improve student learning	Bernhardt, V. (2000)	Students were given hypothetical data sets of schools; they had to list goals related to the data	
3. Coaching teachers for improved student achievement	DuFour, R., & Marzano, R. (2009)	Students were required to demonstrate an effective professional learning community (PLC) program implementation	
4. Evaluating instruction and demonstrating effective teaching	Marzano, R., Pickering, D., & Pollack, J. (2001) Marzano, R. (2003) Marzano, R., Waters, T., & McNulty, B. (2005) Danielson, C. (2007)	Students reviewed several tapes of teachers teaching and discussed with colleagues the effectiveness of what they observed; the goal was to be consistent in their evaluations	
5. Collaborating with others effectively	Kouzes, J., & Posner, B. (2002, 2003)	Students were given hypothetical problems most likely to be faced by urban principals; as part of a team, they were required to identify and suggest solutions	
6. Leading effective meetings	Garmston, R., & Wellman, B. (2009)	Students role-played leading meetings, using information they had learned about leading productive groups	
7. Understanding the dynamics of change within the school environment	Wagner, T., et al. (2006)	Students outlined a change initiative they would implement in a school and provided the communication pieces necessary for this change process to be successful	
8. Managing conflict resolution through polarity management	Johnson, B. (1996)	Students created a polarity map related to diverse ways of managing an issue in their schools	
9. Understanding generational differences	Zemke, R., Raines, C., & Filipczak, R. (2000)	Students discussed at length the generational differences they might encounter in leading a building and discussed how these differences might be a positive and a negative force in a school	
10. Developing school improvement plans	Senge, P. (1990)	Students were required to develop a strategic plan for school improvement, goals/activities	

During the analysis, to adequately compare skill sets mastered in 2008-2009 and those being used in 2012, it was necessary to list the skill sets presented by the professors in 2008-

2009. Table 1 summarizes the leadership skill taught in the original program, required tasks, and references for the theoretical models and literature review that supported these activities.

PARTICIPANT ACTIVITIES AND RESPONSES

In 2009, all of the participants interviewed for the original study were very enthusiastic about the Aspiring Leaders Program. They felt that all of the content was aligned with the work they would engage in as urban leaders. They were particularly grateful for the cohort group design that complemented their individual degree work, since this allowed them to network with other current and upcoming leaders — creating their own community of practice within the district. They also felt that the GVSU faculty members were very responsive to their needs, adjusting the customized curriculum to ensure it was a good fit for the challenges they faced.

In the 2012 follow-up study, a similar pattern emerged. Only one respondent reported frustration with implementing the practices taught, and this individual was seen as an outlier in the data. All of the remaining respondents overwhelmingly reported positive use of the skill sets they had mastered in 2008-2009. Table 2 details the responses by skill set of the 12 participants who responded to the 2012 survey. "Yes response only" indicates that the participant had used the identified skill set. "Yes response with comments" indicates that the

Table 2. Survey Respondents' Replies by Skill Set Learned

Skill Set	"Yes" Response	"Yes" Response,	"No" Response	"No" Response,
	Only	With Comments	Only	With Comments
1. Developing, presenting,	0	11	1	0
and implementing an				
effective vision for				
schools				
2. Using and analyzing	3	8	1	0
data to improve student				
learning				
3. Coaching teachers for	2	8	1	1
improved student				
achievement				
4. Evaluating instruction	2	7	0	3
and demonstrating				
effective teaching				
5. Collaborating with	1	9	2	0
others effectively				
6. Leading effective	3	8	1	0
meetings				
7. Understanding the	0	10	2	0
dynamics of change				
within the school				
environment				
8. Managing conflict	2	9	1	0
resolution through polarity				
management		_		
9. Understanding	4	6	1	1
generational differences	_			_
10. Developing school	2	7	3	0
improvement plans				

participant had used the skill set and gave at least one specific example of how he/she utilized the skill. "No response only" indicates that the participant had not used the skill set in his/her position. "No response with comments" indicates that the participant had not used the skill and made at least one explanatory comment.

It is important to note that the responses to the 2012 survey correlate by title of skill set to the oral interview questions used in the 2009 research project. For example, in 2009 "developing and implementing a vision for their schools" was seen as important to the participants. In the 2012 survey the question was asked, "How have you used the components of your vision speech in your work with staff?" This mirrored set of questions allowed for a comparison of targeted skill sets taught in the program. As one reviews the survey questions, it is apparent that a core set of leadership skills emerges for use in authentic work. The program participants found these skill sets very helpful as the moved into their positions as school leaders. While this targeted list of skill sets noted in this program does not comprise a comprehensive list of the skills school leaders use, it validates the efficacy of the ones taught in the Aspiring Leaders' Program. They are skill sets being used in real time with principals facing real issues and doing so with success.

As can be seen in the raw overall totals shown in Table 2, the participant responses about the program in the 2012 survey were overwhelmingly positive. Specific information follows about some of the original activities participants undertook in relation to each of the 10 skill sets shown in Table 1. Typical participant reactions that emerged during the 2012 study are included for each skill. By reviewing the activities and responses in detail, conclusions can be reached about the value of the program.

Developing a Vision

The Aspiring Leaders Program devoted a great deal of time to the issue of creating an effective vision for schools. "Until educators can describe the ideal school they are trying to create, it is impossible to develop policies, procedures, or programs that will help make that ideal a reality" (DuFour & Eaker, 1998, p. 64). Making the connection between the creation and the implementation of a vision was a major focus for the group. As DuFour and Eaker (1998) note:

The process that is used to develop a vision statement can foster the pervasive support and endorsement that make such a statement an effective instrument for change. The most important question to ask in guiding the process is, "Will this strategy foster widespread ownership?" (p. 66)

Based on the thinking of DuFour and others, participants were directed to assume the role of a principal presenting a vision speech to faculty members. These vision speeches were videotaped and reviewed by the group and the person presenting. In the survey results, the participants overwhelmingly felt this exercise had a great influence on their role as a school leader. One indicated, "I have used my vision speech to elicit and implement ideas and strategies to support students." Another participant noted, "It helped me to become specific about what we were going to work on as a staff throughout the school year to support student learning."

Using and Analyzing Data

The program participants were given several exercises in data analysis. For example, they were directed to work in teams on a set of state testing data for a particular school. They had to comment on four forms of data: demographics, program, achievement, and perceptions. As Bernhardt (2000) points out:

Analyses of demographics, perceptions, student learning, and school processes provide a powerful picture that will help us understand the school's impact on student achievement. When used together, these measures give schools the information they need to improve teaching and learning and to get positive results. (p. 14)

The teams were required to analyze all forms of data and to make recommendations to a mock school improvement team. This challenged their thinking on using data and broadened their view about the kinds of data that are necessary for accurate planning. As one participant noted in the survey, "The Aspiring Leaders Program helped me plan effectively, learn how to analyze data and utilize results, and, therefore, plan effectively and efficiently." Another participant commented, "With the use of data staff could more readily accept our current reality, begin to build trust with each other and set our eyes on our purpose."

Coaching Teachers

In the original program, the team of professors continually reinforced the notion that the answer to improved student achievement exists within the classroom — that teachers, when given the opportunity to coach each other, can find the answers for student achievement. In a prior study, Joyce and Showers (2002) maintained that coaching contributed to the transfer of staff learning: (a) that coached teachers used their newly learned strategies more appropriately than uncoached teachers in terms of their own instructional objectives and theories of specific models of teaching, and (b) that coached teachers exhibited greater long-term retention of knowledge about, and skill with, strategies in which they had been coached and increased the appropriateness of their use of new teaching models over time.

This focus on coaching teachers was validated in a statement by a participant who noted how this had become a reality in her leadership practice. "I have used paired teaching — teaching another's class and having them observe, giving ideas that will help them improve lessons — it has made a big impact on my staff." Another participant noted that mentoring, paired teaching, and observing other teachers' classes had helped teachers improve their lessons.

Evaluating Instruction

"Really knowing what the Danielson Rubric says has helped me a lot as I observe teachers." This comment from a program participant points to the importance of teacher evaluation as a skill set for school leaders. The program's professors provided practice in this area by showing video clips of teachers teaching various subjects. Participants used the Danielson Rubric (Danielson, 2007) to evaluate what they observed. As they had opportunities to practice using the rubric, the participants' confidence rose. Not only did their use of the rubric

improve, but they began to discuss the nature of quality teaching. These discussions added to their leadership skills as their role in evaluation became clearer. Participants also reported they were able to use the Danielson Rubric with more confidence in conjunction with classroom visits and walk-through checklists. One participant noted, "Building consensus on what 'quality teaching' really is has made a profound impact on the staff and their craftsmanship, which I have been able to document in their evaluations."

Collaborating With Others

"Collaboration fuels group development when individual members envision (a) the potential of the group as a collective force in the school, and (b) the expanding capacity of the group for accomplishing important work that individuals working in isolation would not be able to achieve" (Garmston & Wellman, 2009, p. 21).

The program's professors emphasized the important role school leaders play in developing collaborative teams throughout the school — that getting teachers to engage in collective inquiry to find the best way to teach a skill to students is the essence of quality leadership. The program participants studied the Learning Cycle, which includes five components: use knowledge, acquire knowledge, analyze knowledge, share/create knowledge, and employ professional conversations (Knowles, in Brayman, Gray, & Stearns, 2010).

This is just one example of the methods in a larger "tool kit" that the participants received relating to teacher collaboration. A participant reflected on his program experience with this skill set in his 2012 survey response: "The cooperative learning nature of the cohort helped to ground theory into practice through presentations and discussions." Another participant noted that ". . . trying to include all staff in decision-making has increased staff buy-in and ownership of our programs."

Leading Meetings

The original participants in the Aspiring Leaders Program indicated that they had trepidations about their skill in leading meetings. During the program, the dynamics of successful meetings were discussed. From setting the stage for risk-free dialogue to accomplishing important work, all components of a staff meeting were analyzed, including (a) how to distinguish the urgent from the important; (b) how to stay on track, on topic, and focused; (c) how to use conflict constructively; (d) how to orchestrate space and materials; and (e) how to make decisions that stay made (Garmston & Wellman, 2009).

In the 2012 survey, participants reported that the use of relationship builders at the beginning of each meeting created a positive climate in which teachers were able to communicate openly. As one participant noted, "In my staff meetings I've been clear that I'm not an expert in everything but I am committed to learning what we need to know to move forward." The participants also noted that the program's professors modeled effective meeting practices as part of their classroom delivery of information. This modeling led to the following comment: "Using staff meeting time for discussion and collaboration time has been very valuable."

Understanding Change

Understanding the dynamics of change and leading a change process were important instructional components in the Aspiring Leaders Program. The five disciplines of Senge's (1990) change model were shared with the group: (a) team learning, (b) systems thinking, (c) personal mastery, (d) mental models, and (e) building a shared vision. Each of these disciplines was discussed with the participants, and they were required to apply the disciplines to an authentic school situation. The participants also studied the components of Fullan's (2001) change model: (a) moral purpose, (b) understanding the process of change, (c) knowledge creation, (d) relationships, and (e) coherence making. Two of the participants shared the following responses to this focus on change:

I have spent a lot of time talking about change with my staff. We have had staff reductions, a new reading series, and changes in staff and student demographics to name just a few. I have used the presentations from the class and all of the information.

I think the ideas we learned about starting the change process with a few key players have helped me bring about successful changes within my school. Also the dialogue about being a positive change agent with regards to attitude has helped.

Managing Conflict

The program participants were taught a method for managing conflict called Polarity Management (Johnson, 1996). This process helped the future leaders understand how to move from concentrating on the problem to developing an acceptable solution that all staff members can accept. As Johnson (1996) indicates, leaders become more effective by using Polarity Management because they are able to (a) save time and energy by not trying to solve difficulties that are unsolvable, (b) anticipate and minimize problems that occur when workplace dilemmas are not managed well, and (c) improve their decision making.

In the 2012 survey, participants noted that the use of Polarity Management had helped them significantly in dealing with conflict resolution in their schools. One said, "Being more assured that I can manage conflict, I am comfortable trying to include staff in decision-making and increase their ownership of the issues at hand." Another participant stated, "Holy cow! I am currently in a position which had been held by one principal for 25 years. I had to lean heavily on the class information on managing conflict to guide and support me."

Understanding Generational Differences

As Lovely (2005) points out, "A significant and potentially problematic result of the changing dynamics of the American work force is the growing infusion that brings young, old, and inbetweens together into the same employment mix. . . . Recognizing the portrait of each generation enables superintendents and other managers (principals) to hone in on employee strengths, make weaknesses irrelevant and foster a greater appreciation for diversity" (pp. 30-31).

An important skill set presented to the participants in the original program was dealing with generational differences in school staffs. One participant reported on the importance of learning about generational differences by saying, "I have staff who have 35 plus years of experience and new staff as well. The information taught has been very useful working through communication issues." Another participant stated, "I have staff who say, 'these kids,' so I have used the information to create a dialogue to change this attitude." And a third participant noted in the survey, "There is a generational gap between me and my staff; I have used the information to help me work better with them."

Developing School Improvement Plans

The process for developing school improvement plans was the area of study that brought all of the other skill sets together, enabling the participants to see how to move a district forward. The other skill sets all came into play as the participants worked with their colleagues and staff to develop school improvement plans. The participants collected school improvement plans from various districts and analyzed them. They discussed among themselves the strategies they identified in each plan and asked themselves if these plans would work in their school. With the opportunity to learn from other participants' experiences and leadership challenges, they were able to crystallize their own vision of themselves as leaders as they worked with staff to implement a school improvement plan.

The participants read the work of Tony Wagner and his Harvard Change Leadership Group. Using the school evaluation tool provided in the text "Change Leadership" (2006), the participants had an opportunity to evaluate a hypothetical school's readiness for change and the implementation of a new school improvement plan. In the 2012 follow-up survey, one participant stated:

Well I've tried and failed a few times but I was so happy to have that knowledge under my belt. It gave me a great place to start, and now it's a matter of really understanding the people I work with so that I can match it with best practices in terms of change.

Another participant said, "Discussion on cultural competency, generational differences, evaluations, and leading adaptive change have been the most valuable parts of the program for me. The professors instilled confidence in me to take the next step which I will never forget."

DISCUSSION

The original cohort of participants gave overwhelmingly positive responses about the Aspiring Leaders Program when initial interviews were conducted in 2009. The researchers believed a more in-depth review of their responses would yield valuable insights into how the skill sets continued to be used, and this led to the 2012 study. The spirit of a qualitative study is to tell a story. As Miles and Huberman (1994) point out, "Qualitative studies take place in a real social world, and can have real consequences in people's lives . . . so we who render accounts of it must maintain standards worth striving for" (p. 2). Thus, it was very important that the 2012 survey capture the stories the respondents shared, not just data.

As shown by the quantitative and qualitative results of the 2012 survey, there was a strong element of sustainability in the participants' use of skills they learned in the original

program. Fullan (2005) defines sustainability as "the capacity of a system to engage in the complexities of continuous improvement consistent with deep values of human purpose" (p. ix). With this definition in mind, the 2012 follow-up study confirmed and validated the importance of this program to the participants. The goal of the original program was to improve the craftsmanship of the participants through mastery of a defined set of skills. This study's results verified that nearly all of the skills continue to be used by nearly all of the participants who responded to the survey. This result was reinforced by the significant level of congruence found in the participants' responses in the 2009 and 2012 studies.

It is important to note that the team of three professors quickly identified the need to utilize adult learning theory. Adults learn best when they can apply, within a short time frame, what they have learned (Lindeman, in Knowles, Holton III, & Swanson, 2005). Thus, the cohort structure was critically important to the success of this program. Participants were able, in working with their cohort partners, to take their learning from initial knowledge to behavior to usable skill. Having identifiable skill sets that could be immediately applied in the participants' professional lives became the goal of every lesson the professors presented.

This process was supported by the fact that all of the professors in the program had been long-time urban school leaders. Therefore, all of the key instructional content had been gleaned from and applied "in the field" by the professors in their previous jobs. The combination of a customized curriculum, a strong cohort structure, and instruction by seasoned practitioners resulted in a highly successful experience for the participants.

A final critical program element to note was the ongoing support and availability of the professors. In both 2009 and 2012, the participants considered this to be an important part of their success, as represented by the following comments:

- "The ongoing availability of the professors and the constant support went well beyond the time frame of the program and was outstanding."
- "I specifically consulted them about staff issues and was provided much support in the area of difficult conversations with staff."
- "The professors have always been available at any time during or after school hours. They have also made themselves available for professional development in our schools."

Lessons Learned

Some of the lessons that emerged from a comparison of the 2009 data with the 2012 data include the following:

- It was vitally important to listen to the needs of the participants. This was demonstrated in the professors' ability to provide relevant educational instruction and resources/materials.
- The Aspiring Leaders Program was successful is giving the participants a set of skills they could use in their leadership roles.
- The professors' willingness to provide a safe atmosphere in which to discuss current issues and challenges ultimately contributed to the program's perceived success and usefulness.

- It was important to maintain rigorous course requirements, which helped assure program quality.
- The professorial team teaching model that was utilized greatly enhanced the participants' engagement in the program.
- To generate the greatest value for the participants, the professors had to be willing to give of their own time and expertise on an ongoing basis long after the program concluded.

Recommendations for Future Study and Partnerships

In addition to the lessons learned, the following recommendations are offered for the consideration of any organization that might undertake a similar project:

- One area for future study is to ascertain what skills these participants were lacking in their ability to successfully do their jobs. Having this information could result in program adaptation that could inform future such training programs.
- In developing these partnerships, professors need to be willing to immerse themselves in the participating school district's system and any existing urban initiatives and issues.
- University personnel need to approach these partnerships with flexibility and an understanding that they will need to adapt existing curricula to meet the specific needs of the urban educators/participants involved.
- A successful partnership requires the consistent presence of professors who are willing to work with their urban educators/participants to build trusting relationships; this will support a safe learning environment.
- These partnerships require a team approach, which models for the participants how teamwork can move school improvement initiatives forward in their urban settings.

CONCLUSION

To a great extent, the successful future of our nation's public schools lies in the hands of school leaders. The 2008-2009 Aspiring Leaders Program sought to give future education leaders in one urban school district the skill sets necessary to enable them to be highly effective professionals. When the 2012 study was used to "check in" with the participants in the program, it confirmed the efficacy of that training. Such university/K-12 school partnerships should be encouraged across the country. They have the potential to positively transform the future for our children.

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Training Programme for Secondary School Principals: Evaluating its Effectiveness and Impact

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The article presents the evaluation of the training programme for secondary school principals conducted in the period between 2006 and 2009. A mixed method approach was used to conduct the summative evaluation with 28 graduate participants. For the impact evaluation, 15 of the graduates were interviewed three years after the programme was completed. The quantitative data was analyzed using means and standard deviation. The findings revealed that participants gained technical and relational skills but responses were less favourable in relation to cognitive or conceptual skills, while the support from lecturers and workplaces was strong but less favourable from the central ministry. There was a positive impact on participants' performance during the period of training, especially in the areas of confidence, collegiality and overall leadership. For the impact evaluation, graduates credited the programme for their promotion to become principals, vice principals, senior teachers or give added responsibilities. They identified areas to be enhanced for any further programme to include school law, financial management, policy development and interpretation, and conflict management and relational skills. The main recommendation is that for any further programme for the training of principals should be guided by the findings of the evaluation.

INTRODUCTION

The poor performance of the public education system of Jamaica has led to calls for improvement in the quality of leadership provided by principals. Correspondingly, the weak performance by students who sat the Caribbean Secondary Education Certificate (CSEC) examination and various national examinations was in part blamed on the limitation of the principals (Hutton, 2010). The response by the Task Force on Education Reform (2004) was that "all principals are to get continuous training in school management and leadership in a variety of accredited institutions" (p. 36). While the Task Force on Education Reform seemed to imply a normal call for continuous upgrading or professional development, the reality was that many principals had not exhibited the competencies and abilities to impact the performance of schools (Hutton, 2010).

NCPEA International Journal of Educational Leadership Preparation, Vol. 8, No. 1– March 2013 ISSN: 2155-9635 © 2013 National Council of Professors of Educational Administration

In response to the concerns for the leadership deficiencies in the school system, a training programme for principals and senior administrators was conducted by the School of Education, University of the West Indies. On completion of the training programme, a summative evaluation was completed followed by an impact evaluation three years after. The purpose of this evaluative study was to (a) determine if the training programme addressed the areas of weaknesses which were targeted for improvement by principals and other senior staff who participated, and (b) identify challenges experienced with the implementation of the programme.

Literature Review

There was a time when professional development in the education system was reserved for teachers and administrators. However, it was soon recognized that the principals also needed to display modern and effective management and leadership skills (Skria, Erlandson, Reed and Wilson, 2001). Darling-Hammond, Meyerson, Lapointe and Orr (2010) identified instructional and transformational leadership as the two interrelated and underpinnings factors for effective school leaders. A unique assessment of the principal was advanced by Owings and Kaplan (2012) who posited that over the period of stewardship as principal, their "perspective experience and behaviour may change . . . (therefore their) career should be considered flexible and fluid" (p. 517). The implication for this perspective is the necessity for principals to receive training and professional guidance in order to function effectively at each stage of their leadership development.

For the novice principals and others in training, Darling-Hammond et al. (2010) established that the approach that works has "both peer support, including cohort groups and collegial network; and expert supports, such as mentoring and coaching" (p. 75). Bossi and Warren (2008) identifying the areas of focus for the Association of California School Administrators/NTC said that the leadership training is individualized, supported by both coaching and mentoring and it is both on-site and institutional based in its delivery mode. Addressing the skills required of principals for the 21st century, Green (2010) postulated that while instructional leadership is central, managerial competencies are necessary for effective performance of schools.

Reeves (2002) described the traditional training programme for principals as fragmented and proposed that it should be "a combination of research, case study, small group work and personal reflection... (and it) should focus on four key areas: people, strategies, organizations, and systems" (p. 162). Lovely (2004) endorsed Reeves (2002) view and emphasised that for the new approach to the training of principals, "apprentice and intern programmes allow prospects to get into the trenches and discover firsthand what is means to be a learning leader. Apprentice and intern programmes for aspiring principals are an excellent means of getting that experience to your candidates" (p. 40).

As we focus on how school leaders are selected and prepared, Fullan (2007) endorsed the use of "succession practices to ensure the continual cultivation and flow of new leaders; and the fostering of habits and practices that envision school heads as system leaders" (p. 296). Reeves (2002) suggested that (a) principals should emerge from the classroom, (b) schools should become a centre for training in principalship, and (c) training should be delivered by a variety of talents from the public, private and non-governmental sector entities.

The study of leadership has focused on leaders' personal qualities, the skills they acquire and their actual behaviour. Personal traits have been identified as important to leadership effectiveness (Hoy & Miskel, 2005; Lunenburg & Ornstein, 2008). Hutton (2010) noted that "high performing principals are self-confident and (they) believe in their ability to provide leadership for the school to achieve the goals and objectives being pursued" (p. 6).

Hoy and Miskel (2005) identified a combination of skills and trait variables under three broad categories: personality, motivation and skills. Yukl (2002) and Northouse (2004) identified technical, interpersonal and conceptual skills as important for effective leadership. Effective leadership in the 21st century is represented by an amalgamation of the: (a) contingency approach which focuses on the actual situation requiring leadership input (Hanson, 2003); (b) behavioural approach, which focuses on what leaders do--this was established by the Iowa studies of the 1930s and Ohio and Michigan of the 1950s (Gorton, Alston & Snowden, 2007), and (c) combination of traits and behaviours approach which is characterized as leadership styles (Lunenburg & Ornstein, 2008). Therefore, it is evident that the delivery of any training programme must be informed by both the lessons learned from the experiences of an effective training programme and our knowledge of effective leadership skills.

Programme Background

The certificate programme in School Leadership for Secondary School Principals began in July 2006 as a 3-year project involving the School of Education and the Ministry of Education. The aim of the programme was to train 75 secondary school principals, in the principles and practices of effective school leadership. The programme came out of the Memorandum of Understanding (MOU) between the Ministry and Finance and Planning and the Jamaica Confederation of Trade Unions (JCTU), which represented a part of the agreement to settle the salaries negotiation between the Government and the Jamaica Teachers Association in 2006. An initial sum of J\$3.4M was allocated to fund the programme, but this was increased by J\$2.8 in 2009 to fund the upgrading of the programme to a Post Graduate Diploma in Educational Administration. Sixty nine (69) principals, vice principals and senior teachers were recruited and trained between 2006 and 2009. All 19 students of Cohort 1 completed the certificate programme and the 27 of 31 students in Cohort II were also successful. Cohort III, which pursued the Post Graduate Diploma in Educational Administration, 16 of the 19 students completed the programme.

Of the 46 students from Cohorts I and II who did the Certificate programme, 19 of them successfully completed the Post Graduate Diploma in Educational Administration and graduated in 2011. Even though the programme was evaluated as successful by both client and participants, the Ministry of Education took the decision not to continue it beyond Cohort III because of the financial constraints. A number of the participants who were vice principals and senior teachers have since been promoted to principals and vice principals, respectively. The programme remains popular among graduates and those in the Ministry of Education who were responsible for its successful implementation.

Programme Structure

The certificate programme was designed to commence during the summer and complete at the end of the academic year. There were five, three-credit courses and a practicum and study. The programme initially started with an introductory non-credit module in computing. The third cohort of students was afforded the opportunity to pursue the Post Graduate Diploma in Educational Administration. The students who had already completed the certificate version of the programme were required to do an additional 12 credits to complete the Post Graduate Diploma. Some 62 students were successful in completing the programme at either the Certificate and Diploma or Diploma level only.

METHOD

Subjects

The sample selected for the summative evaluation consisted of 47 programme participants who pursued the Post Graduate Programme in Educational Administration. Twenty eight (28) persons completed the questionnaire, which represented a response rate of 60%. For the impact evaluation, 15 graduates of the programme were interviewed to elicit their responses to its effectiveness three years after they graduated. It should be noted that the small sample size represented a significant limitation of the study.

Measure

A questionnaire containing quantitative and qualitative items was used to capture responses from the participants. Quantitative responses were collected through the use of six sub scales. The sub-scale items were formatted using a five point Likert scale, where responses ranged from: 1=Strongly Disagree, 2=Disagree, 3=Undecided, 4=Agree 5=Strongly Agree. The sub scales were created and used to assess: 1) the skills, knowledge and attitudes acquired through the Principalship programme (16 items); 2) measure the support received by participants from their schools, the Department of Educational Studies, and the Ministry of Education (11 items); 3) to ascertain participant feedback on the organisation and delivery of the programme (6 items); 4) to assess the effectiveness of the principals' training programme (6 items); 5) assess how the programme prepared participants to develop and demonstrate personal skills and abilities (6 items); and 6) the relevance of the programme to perform your duties and responsibilities at the participants' school (10 items). Qualitative responses were collected through the use of three open-ended statements which sought to elicit addition information on trainees' assessment of the training programme. The statements are as follows:

- 1. List two benefits you have achieved/will achieve from participating in this programme
- 2. List two things that you did not like about the programme
- 3. Indicate any other helpful comments related to the programme

For the impact evaluation a questionnaire guide consisting of ten questions were used to obtain information from respondents. The questions were related to (a) personal benefits gained as a result of the programme, (b) the overall impact of the programme three years after

completion, (c) areas they would target for improvement, and (d) areas that they would add or remove from the programme.

Procedure

The questionnaires were administered on the final day of the programme for Cohorts 1 and 2. Participants were asked to complete the instruments and return them to programme administrators the same day or within a week after they handed out. The instruments were emailed to the Cohort 3 who had completed the programme the previous year. For the impact evaluation, respondents were contacted and telephone interviews were planned based on an agreed time scheduled. The interviews took between 10 and 20 minutes, and this phase of the data gathering was completed over a two-week period. Participants for the interview were selected from the list of trainees who pursued the Post Graduate Diploma in Education Administration.

Data Collection and Analysis

The data was collected using a Likert type scale, which focused on six categories, each representing a sub scale. The categories included competencies acquired, quality of support, programme facilitation, programme effectiveness, programme effect on personal skills and abilities, and plant and facilities maintenance and development. The data were analyzed using means, standard deviation and percentages. The qualitative data related to the summative evaluation were analyzed using the inductive thematic analysis technique, which was outlined in a word tree diagram (Thomas, 2003). For the impact evaluation, the themes were selected based on the areas that were consistently emphasized by respondents. The questionnaire was validated based on feedback provided by colleagues who participated in the programme along with students who completed the programme. The results of the Cronbach Alpha test conducted are shown in Table 1.

Table 1 Cronbach Alpha Results for each of the Six Sub Scales Measuring Participants' Evaluation of Principals' Training Programmes

Scale	Cronbach's Alpha
Competency Acquired Scale	.967
Quality of Support Scale	.797
Programme Facilitation Scale	.802
Programme Effectiveness Scale	.908
Programme effect on Personal Skills and Abilities Scale	.942
Plant and Facilities Maintenance and Development Scale	.903

RESULTS

1. What were the skills, knowledge and attitudes acquired as a result of the principals' programme?

The competencies acquired by participants in the training programme were measured by 16 items on a Likert-type sub scale. The means and standard deviation for the items are illustrated in Table 2.

The analysis reveals that "information related to the running of school rules, regulations and policies" (M=4.32, SD=0.9) was rated as the most frequently acquired skill on the scale. The least acquired skill was "applying creative solutions to solve problems" (M=3.92, SD=0.70). The mean for the sub scale was (M=4.63, SD=0.11) This indicates that an average participants were in "strong agreement" with the positively worded items, thus signifying that a substantial amount of skills and knowledge were garnered by programme participants.

Table 2
Competencies acquired as a result of the programme

Item	N	Mean	Std. Deviation
1. Interpreting information related to the running of the school-rules, regulations, policies, etc.	25	4.32	0.9
2. Formulating and communicating school vision	25	4.24	0.93
3. Displaying relational skills naturally and consistently	25	4.2	0.91
4. Communicating clearly with all stakeholders	25	4.2	0.82
5. Establishing sociable relationships with both school and non-school communities	25	4.16	0.90
6. Evaluating staff performance	25	4.12	0.83
7. Establishing cooperative and collaborative relationships with internal and external stakeholders	25	4.12	0.67
8. Being able to see the "big picture" related to the job	25	4.12	1.01
9. Maintaining student discipline	25	4.08	0.95
10. Interpreting and managing budget	25	4.08	0.95
11. Showing sensitivity, empathy, consideration, and tact	25	4.08	0.86
12. Being able to advance and or consider "big ideas"	25	4.04	1.09
13. Supervising and coordinating improvements in teaching and learning	25	4	0.95
14. Understanding the impact of the world and local environment on school life	25	4	0.76
15. Interpreting and using test results	25	3.92	0.95
16. Applying creative solutions to solve problems	25	3.92	0.70

Note: N = 28. Scale interpretation ranges for the scale means: 1 = Strongly Disagree (1.00-1.49), 2 = Disagree (1.50-2.49), 3 = Undecided (2.50-3.49), 4 = Agree (3.50-4.00), 5 = Strongly Agree (4.5-5). Scale M = 4.63 (SD = .11).

2. What was the quality of support received from your schools, Ministry of Education (MoE), and administers of the programme from the School of Education?

The quality of support sub scale was used to measure how participant perceived the training programme. Results in Table 3 shows that generally the teachers 'agree' with all the items presented on the scale (M = 3.84, SD = .437). Specifically, participants indicated that support came primarily from the programmes instructors, and they strongly agreed that the "instructors were lenient with late assignment" (M = 4.84, SD = .74). Participants experienced the least amount of support from the Ministry of Education (M = 3.23, SD = .83).

Table 3
Support received during the implementation of the programme

	Item	N	Mean	Std.
				Deviation
1.	The instructors were lenient with late assignments	21	4.38	0.74
2.	My instructors demonstrated concern for the challenges I was encountering during the programme	21	4.38	0.59
3.	I received assistance from my school in carrying out the responsibilities assigned to me when I was/am attending classes	21	4.33	0.73
4.	My superiors at school provided emotional support while I attended the course	21	4.14	0.79
5.	I received the travel support recommended by the MOE for attending the programme	21	3.86	1.42
6.	My academic department (UWI) demonstrated concern regarding the needs of the students	21	3.86	0.66
7.	Some of my personal responsibilities were taken on by other family members while I attend classes	21	3.76	1.22
8.	My academic department (UWI) was responsive to the needs and concerns of the students	21	3.76	0.83
9.	MOE was responsive to the needs and concerns of the students	21	3.33	0.86
10.	I received general support in preparing my assignments	21	3.23	1.37
11.	MOE demonstrated concern regarding the needs of the students	21	3.23	0.83

Note: N = 28. Scale interpretation ranges for the scale means: 1 = Strongly Disagree (1.00-1.49), 2 = Disagree (1.50-2.49), 3 = Undecided (2.50-3.49), 4 = Agree (3.50-4.00), 5 = Strongly Agree (4.5-5). Scale M = 3.84 (SD = .437).

3. How effective was the programme organized in order to facilitate your attendance and participation in classes while continuing to perform your responsibilities at school?

Table 4 shows the analysis of the programme facilitation sub scale. The results indicated that on an average teachers 'agree' with all the items presented on the scale (M = 4.1, SD = .423). The most appealing aspect of the programme's organisation was the fact that "instructors were

cognizant of the fact that they were adult learners" (M = 4.5, SD = .67). Participants were neutral with the view that the "programme was scheduled with due consideration not given to job commitments" (M = 3.34, SD = 1.47), thus ranking this item as the least appealing component of the programme.

Table 4
Participant's perception of the programme's organisation

 Instructors were cognizant of the fact that we were adult learners The instructional techniques used were appropriate 32 4.41 0.62 The instructors were prepared to deliver the courses 32 4.38 0.49 they taught The programme was executed in an efficient and effective manner The physical learning accommodation provided 32 4.06 were appropriate for the programme The programme was scheduled with due 32 3.34 1.47 	ation
 3. The instructors were prepared to deliver the courses 32 4.38 0.49 they taught 4. The programme was executed in an efficient and 32 4.16 0.77 effective manner 5. The physical learning accommodation provided 32 4.06 1.11 were appropriate for the programme 	
they taught 4. The programme was executed in an efficient and effective manner 5. The physical learning accommodation provided were appropriate for the programme 32 4.16 0.77 effective manner	
effective manner 5. The physical learning accommodation provided 32 4.06 1.11 were appropriate for the programme	
were appropriate for the programme	
6 The programme was scheduled with due 32 3 34 1 47	
consideration given not our job commitments	

Note: N = 28. Scale interpretation ranges for the scale means: 1 = Strongly Disagree (1.00-1.49), 2 = Disagree (1.50-2.49), 3 = Undecided (2.50-3.49), 4 = Agree (3.50-4.00), 5 = Strongly Agree (4.5-5). Scale <math>M = 4.1 (SD = .423).

4. How did you rate the effectiveness of the principals' training programme?

Table 5 shows that when asked to rate the effectiveness of the principals training programme, the sub scale mean (M=4.1, SD=.423) indicated that on an average participants 'agreed' with all statements in the sub scale. Overall, the statement with the highest rating was "I am expected to play a leadership role in the implementation of the transformation programme in my school" (M=4.55, SD=.57). The lowest rank item on the sub scale was "my supervisors expected them to contribute more to the running of the school on completion" (M=4.39, SD=.67).

Table 5
Participants perception of the programme's effectiveness

Item		N	Mean	Std. Deviation
1.	I am expected to play a leadership role in the implementation of the transformation programme in my school	31	4.55	0.57
2.	I am expected to play a major leadership role in the school	31	4.55	0.68
3.	My superiors will expect me to contribute more to the running of the school	31	4.52	0.63

4. I am expected to contribute more to the solving problems in the school	of 31	4.52 0	0.81
5. I am expected to develop the relationship between	en my 31	4.52 0	.51
school and the wider school community 6. My supervisors expected me to contribute more	to the 31	4.39 0	.67
running of the school on completion			

Note: N = 28. Scale interpretation ranges for the scale means: 1 = Strongly Disagree (1.00-1.49), 2 = Disagree (1.50-2.49), 3 = Undecided (2.50-3.49), 4 = Agree (3.50-4.00), 5 = Strongly Agree (4.5-5). Scale M = 4.1 (SD = .423).

5. How well did the programme prepare you to develop and demonstrate personal skills and abilities?

Participants were provided with a sub scale to capture their views on ways in which the programme prepared them to develop and demonstrate personal skills and abilities. Based on the sub scale mean (M=4.5, SD=.077) respondents strongly agree with all the items on the sub scale. Respondents were mostly in agreement with the view "I am willing to demonstrate greater commitment to the development of the school" (see Table 6).

Table 6
Perception of skills and abilities acquired from participating in the programme

	Item	N	Mean	Std. Deviation
1.	I am willing to demonstrate greater commitment to the development of the school	32	4.66	0.70
2.	I am willing to work harder to achieve the goals of my school	32	4.60	0.71
3.	I am better able to challenge my superiors on policy issues which i fee are suitable for my school	32	4.53	0.62
4.	I am more confident that i will demonstrate greater care in managing the resources and facilities in my school	32	4.5	0.72
5.	I am more confident in performing my responsibilities	32	4.47	0.95
6.	I am better able to work with colleagues and other constituents in my school	32	4.46	0.72

Note: N = 28. Scale interpretation ranges for the scale means: 1 = Strongly Disagree (1.00-1.49), 2 = Disagree (1.50-2.49), 3 = Undecided (2.50-3.49), 4 = Agree (3.50-4.00), 5 = Strongly Agree (4.5-5). Scale M = 4.5 (SD = .077).

6. How did you rate the relevance of the programme to perform your duties and responsibilities at your school?

The results in Table 7 below produced a sub scale mean (M=4.63, SD=.15), which showed that among respondents the training programme is of relevance to their duties and responsibilities at school. The training programme was perceived to be of greatest relevance to "leadership for school improvement" and of least relevance to "study"

Table 7
Participants' perception of the programme relevance

Item		N	Mean	Std. Deviation
1.	Leadership for School Improvement	28	4.82	0.39
2.	Curriculum theory, planning and development	28	4.75	0.52
3.	Organizational behaviour in education	28	4.71	0.46
4.	Educational supervision and evaluation	28	4.71	0.53
5.	Human, Facilities and financial management in schools	28	4.68	0.67
6.	Legal and Professional Competencies for Educational Administrators	28	4.64	0.83
7.	Issues in Jamaican education	28	4.61	0.57
8.	Action research in educational administration	28	4.61	0.57
9.	Practicum	28	4.43	0.88
10	. Study	28	4.32	0.98

Note: N = 28. Scale interpretation ranges for the scale means: 1 = Not Important (1.00-1.49), 2 = Somewhat Important (1.50-2.49), 3 = Undecided (2.50-3.49), 4 = Important (3.50-4.00), 5 = Very Important (4.50-5.00). Scale M = 4.63 (SD = .15).

7. What personal gains (including promotion, increased responsibilities, etc.) you have achieved as a result of the principals' training programme? F45-50

Figure 1 shows that the majority of the respondents (40%) were of the view that their participation in the training programme resulted in them having greater respect from colleagues, while 32 % share the view that they were better able to manage specific programmes. On the other hand, 20% noted that they were assigned additional duties at their school. Only 8 % obtain a promotion upon completion of the training programme.

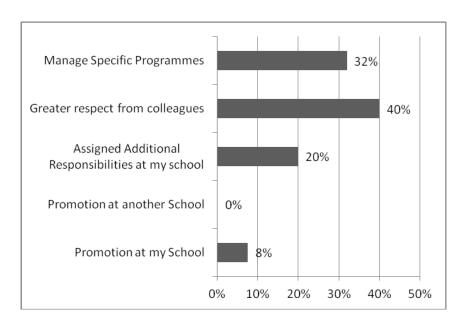


Figure 1. Participants perception of personal gains obtained from the programme

DISCUSSION

Quantitative Data Analysis

The high rating of the programme content by participants is an indication that they felt the programme targeted some of the critical areas which were related to deficiencies in their performance as principals and school leaders. Additionally, the high rating must be seen in light of the fact that (a) participants selected were practising administrators; (b) they were able to determine if the knowledge and performance gaps were covered by the content; and (c) it was a collaborative effort mainly between the central ministry and the University of the West Indies (UWI), which would naturally improve the relevance of the programme content.

Of particular relevance to the Jamaican situation, is the optimum approach to the training of school administrators in an American school system. As Lovely (2004) pointed out "to better align school districts' needs with principal preparatory programmes, partnership needs to be established between university and a single or consortium of districts" (p. 29). Darling-Hammond et al. (2010) reminded us that the principals' competencies are not limited to what they do but also what they know; therefore, it is when theory and practice are brought together that the effective principal is truly created.

One of the main areas of concern expressed by the programme participants was the quality of support received from Ministry of Education, the UWI administrators and family to completing academic and work-based assignments. There were also constant complaints surrounding issues such as special allowances that should have been provided by their schools as directed by the central ministry. Darling-Hammond, Lapointe, Meyerson, Orr and Cohen (2007) emphasized the importance of providing sufficient support for training, especially those which include professional development programmes "offered free of charge, (with) tuition waivers, release time to facilitate clinical fieldwork, and paid internships" (p. 96).

Even with the concerns raised by programme participants, aspects of the organization and execution of the programme received high ratings from them. For example, participants

were permitted by central ministry to be away from school three days per week in order to participate in the programme. At the same time, when school assignments were not completed because programme participants were away at the UWI, a new time to complete outstanding tasks had to be found, which naturally increased the burden on the trainees. For future programme, this area has to be addressed although participants must expect to make some sacrifices, especially when they will benefit personally from a programme designed and implemented for their own upgrading.

There was high expectation for programme participants to perform more effectively after completing the programme. This was borne out of the fact that some persons were elevated to the post of principals or other senior administrative positions. For the others, they were given added responsibilities which assisted in building their own confidence. Participants were more willing and better prepared to operate at the strategic level in terms of goal setting, policy issues, and the general operation of the schools. This is a good outcome of the programme because there is the danger of focusing on operational issues "at the expense of their more strategic imperatives" (Fullan, 2008, p. 4). In addition to the skills related to organization and governance, their relational skills were also enhanced based on working with colleagues and other school constituents. This is most important because principals should be able to "determine the strengths and expectations of those individuals, gain insights into their values, beliefs, interests, levels of motivation, and understanding how they view the school and the behaviour of the leader" (Green, 2010, p. 50).

The relevance of the programme was confirmed by the respondents in terms of the duties and responsibilities they had to perform. This was possible because courses were determined by the limitations exhibited by principals and other administrators in the school system. Within a collaboration framework, the Ministry of Education and the UWI identified the areas of greatest needs. The fit between the skills required to perform effectively as administrators and the content delivered seemed to match as far as programme participants were concerned.

The need for better programme alignment was confirmed by Lovely (2004) as important if principals are expected to improve performance. Further, Darling-Hammond et al. (2007) pointed out that one of the major problems with traditional training programme was the "misalignment between program content and candidate needs" (p. 7). The confidence that participants expressed in their willingness to take on additional administrative responsibilities while they were doing the programme should be specially noted; furthermore, coupled with the fact that their superiors were willing to assign them additional tasks, must at least be credited to the relevance and appropriateness of the programme.

Qualitative Data Analysis

Participants identified the development of confidence in self as one of the enduring benefits of the programme. This resulted from the exposure, experience and competencies gained from the courses and the overall programme setting, which allowed them to perform their leadership responsibilities with a greater level of certainty and resolve. As Oyer (2011) explained, confidence is a personal trait that does matter because it "is an essential attribute of effective leaders" (p. 109). According to respondents, the collegial atmosphere was also a central factor responsible for the confidence gained. It bolstered them to execute the roles they were assigned with greater level of effectiveness and efficiency.

Confidence was also associated with their ability to better manage human resources and apply the knowledge of culture to how things were done in the schools. Their ability to assist others in the schools, improve linkages with external organizations and performing duties related to curriculum matters was also related to confidence gained as a result of the programme. Their introduction to ideas and practices based on the most recent research on leadership and the effort made by programme providers to be more responsive and relevant to the needs of the students would have been central in building the confidence factor. Patterson and Kelleher (2005) noted that the level of confidence can make a difference between effective and ineffective performance. The training programme definitely enhanced confidence which intern improved the performance of the principals in training.

The collegial relationship which developed among the principals and other administrators in training became a source of inspiration for each person. Although Robbins and Alvy (2009) noted that "collegiality that exists when staff members collaborate is not created over night" (p. 115), in actuality, collegial relationships served as a parallel learning opportunity and source of information to address real problems in the schools. In these instances, colleagues shared their experiences and perspectives among each other. Subsequently, greater insights were gained regarding the resolution of intractable issues faced by administrators in their respective schools. The help of colleagues was also credited for assisting them to complete their post graduate diploma, gaining information of human resources and, importantly, managing the budgets more effectively. Additionally, building effective networking with other principals and understanding the vital role of stakeholders were linked to the collegial spirit that was fostered by the programme.

Factors related to time and work were identified as limitations to the programme. The lack of time impacted performance in five areas:

- 1. Programme participants expressed concern that assignments could not be completed satisfactorily because of the time constraints which created a stressful learning situation.
- 2. The programme itself was felt to be too time consuming because it was crammed over a period of one year.
- 3. Participants were required to continue to perform at their post even though they were away from the job sometimes three days per week.
- 4. The volume of work was also noted as one of the factors which had significant time implications.
- 5. The number of assignments given by lecturers was identified as one of the areas directly related to the volume of work.

The participants recommended that the programme should be broadened to include the other levels of leadership in the school system including, vice principals, heads of departments, and senior staff with major administrative responsibilities. Some persons expressed the view that all principals should be exposed to at least selected modules of this programme. Overall, the programme was seen as both timely and relevant with special credit given to the hands-on nature of the courses. It was recommended that this programme should be a prerequisite course of study for those selected for leadership responsibilities.

Programme Impact—Three Years After

A follow up evaluation was conducted with 15 of the participants who completed the programme, with the aim of ascertaining the impact of the programme. All 15 respondents indicated that the programme had a significant impact on their performance as administrators. One respondent said that "we have learned to improve the way we administer and lead" and the action research project that she completed "has been used to guide the development of the school's safety and security programme." Five of the individuals were promoted to either principals or vice principals and they all confirmed that the programme played an important role in their promotion. Affirming the role played by the programme in his elevation to the chief administrator at his school, one of the participants said "we got a chance to practice what we learned while on the job and this assisted in my promotion to the principalship." Another respondent indicated that the programme provided much information on school operations and the presentation on the new and expanded role of the principals in the present school system was enlightening.

As indicated in the initial evaluation, respondents restated the significance of sharing of experience among programme participants. They were able to relate to each other the problems they faced on a day-to-day basis and received suggestions and strategies to apply. Further, they were able to discuss the interventions and make adjustments after further discussions with their colleagues. One point of note was the number of experienced principals and other senior administrators who were instrumental in sharing tested formulas for addressing a myriad of problems including student discipline, school-community relationship, relationship with the central ministry and regional offices, among others. In fact, this could be considered a pre-networking formation because the relationship continued for some three years after the conclusion of the programme. The most beneficial experiences for most persons include (a) delivery of some courses, including organizational development; (b) sharing of ideas during class discussions and break periods; and (c) communicating with colleagues when they were actually on the job. In fact, these experiences could be characterized as networking being built from infancy.

Those who were given the opportunity to do their practicum at business enterprises had high praises for the experience gained, which in some cases were very different from what would obtain in a school setting. It was noted that decisions taken were carried out with dispatched, and management was less tolerant with persons who failed to perform; furthermore, there was no doubt regarding the priorities the companies identified as important. Areas such as production, accountability and quality were constantly emphasized and everyone was expected to play his/her role to achieve agreed targets. This was in contrast to the more laidback and lackadaisical approach taken by some school leaders. It was suggested that school leadership should be exposed to the practices of businesses in order to transfer some of these qualities to the school organization.

The courses identified as most useful by the respondents included: financial management and facilities maintenance. Darling-Hammond et al. (2010) emphasized the need for "designing and implementing programmes that produce strong principals requires an understanding of how to organize and finance components and supports" (p. 133). With secondary schools operating annual budgets of over J\$20M and some are involved in income earning activities, it is important that principals, vice principals and other senior officers of the

school system have substantial training so as to interpret the financial statements and understand the financial matters of the school. In fact, school principals are classified as the 'accountable officer' (Financial Administration and Audit Act, 1996, 74A) so they clearly have a functional responsibility for the financial affairs of schools.

Facilities maintenance was also one of the areas introduced for the first time in a formal training programme related to school administration. Increasingly, it is recognized that the quality of the physical plant impacts learning and students' attitude to schooling. Commenting on the importance attached to the quality of the school facilities by principals, Hutton (2010) indicated that "the high performing principals posited the view that, in addition to facilitating learning, the physical environment and the quality of the facilities are true representations of the conscience of the school and the pride the school community has in itself and stakeholders" (p. 13).

One of the main areas of complaint after three years since the conclusion of the programme related to how the programme was administered. Concerns were raised regarding the journey which some persons had to make across the Island to the location at UWI. One person suggested that if the programme was done on a residential basis, it would not have been so stressful, especially for the participants from the rural areas. It is prudent, therefore, that any new programme for the training of principals must take into consideration the general impact on the participants.

It seems that a programme that is designed and implemented by the central ministry must address the issues that will limit the performance of participants in the programme. Especially in a period of financial exigency, areas such as travel, time off, and formal staff replacement must be addressed before programme participants commence their programme. Given that participants have to travel long distances from the rural areas to attend classes in Kingston, Jamaica; the programme should be offered at alternative locations in order to minimize some of the problems identified above. Additionally, the use of online facilities would significantly address the problems related to travel.

A number of recommendations were made to improve the content of the programme. First, a number of graduates who were interviewed indicated that there is a need for principals to be equipped with effective interpersonal and conflict management skills. They emphasized its necessity because with some schools having over 70 teachers and in excess of 1500 students, conflicts would naturally arise, and it is the principal who is expected to intervene. One respondent pointed out that "in order to lead staff and motivate them effectively, human relation and interpersonal skills are necessary." Emphasizing the urgency for principals to acquire these skills, one principal said that "sometime the conflict and antagonist relationship are displayed by the teachers who are the trained professionals."

The second area that was emphasised was the need to provide principals with the competencies to develop policies. Increasingly, schools which are broadening their scope of activities to include the wider community must introduce policies to effectively manage areas of agreements related to business contractions or joint ventures. This is in keeping with the thrust of the central ministry to decentralize some of the areas related to governance and authority to the lower levels of the education system, including the schools (Hutton, 2009). Additionally, principals' ability to interpret existing policies, according to Skrla, Erlandson, Reed and Wilson (2001), are regional or national attainable and must be enhanced if they are to act in accordance with policy guidelines.

Third, it was recommended that the areas related to school laws and regulations must be strengthened. The fact is that some principals and school administrators are left frustrated and sometimes embarrassed because they failed to follow procedures that are consistent with the code of regulations and the laws of the country. Stader (2007) indicated that "a significant part of... (the) new responsibility (of the principal) requires an understanding, appreciation, and application of legal and ethical principles to school leadership" (p. 1). It should be noted that parents as well as citizens' organizations are opting to use the courts to deal with schools which may breach the code of regulations, the citizens' charter or the constitution of Jamaica based on the action taken. In order to respond appropriately to these issues, the central ministry along with the training institutions must provide the relevant training to get both principals and school boards better informed and more prepared.

CONCLUSION

The training programme for secondary school principals represented an important intervention coming out of the agreement which involved the public sector workers and their organizations, the Ministry of Finance and Planning, and the Ministry of Education. This tripartite approach identified and addressed an area of deficiency—school leadership, which is the single most important area outside of the role of teaching. While either the Jamaica Teachers' Organization or the principals' organizations played limited or no role in the implementation of the training programme, the limited run was fairly successful.

The proposal to introduce the National College for Educational Leadership (NCEL) would indeed play a more expansive and comprehensive role than the principalship programme. However, the question is: should a new entity be instituted when there are four universities and numerous teachers' colleges with the capacity and experience to implement this programme? Any presentation of a new programme specifically to train principals must be done in partnership with the principals' and teachers' organizations, the central ministry and the entities responsible for delivering the programme. While the programme which targeted the principals of secondary schools has ended, many useful lessons have been learned. These lessons should be used to inform any new programme that is considered for training principals in the future.

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Principal and School-Level Effects on Elementary School Student Achievement

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The purpose of this study was to determine if principal tenure, principal stability, and principal educational experience in public education along with school-level variables predicted elementary school student achievement. A second purpose was to examine whether there was a significant difference between (a) levels of principal tenure and levels of principal educational experience on elementary school student achievement and (b) levels of principal stability and levels of principal educational experience on elementary school student achievement. The findings revealed that the school-level variables were stronger predictors of student achievement than principal-level variables. However, for both grade 3 and grade 5, principal tenure was a significant predictor across subject areas tested. As the length of a principal's tenure at a school increased, the schools mean scale scores increased. Findings also revealed that schools with greater principal stability had higher school mean scale scores. In addition, principal educational experience had less of an impact on student achievement than principal tenure or principal stability.

INTRODUCTION

The educational literature is rich with descriptions focusing on school leaders as related to their roles. With increased accountability being placed on schools, principals are expected to lead schools to high levels of student achievement (Chrispeels, 2004). This is not a new concept. In 1979, Edmonds identified school principals as essential to improving student achievement. Since that time, many researchers and writers have confirmed Edmond's belief that school principals can have a significant impact on student achievement (Bottoms, O'Neill, Fry, & Hill, 2003; Hess, 1999; Marks & Printy, 2003; Nettles & Petscher, 2006; O'Donnell & White, 2005; Scheerens & Bosker, 1997; Waters, Marzano, & McNulty, 2003; Zigarelli, 1996).

NCPEA International Journal of Educational Leadership Preparation, Vol. 8, No. 1– March 2013 ISSN: 2155-9635 © 2013 National Council of Professors of Educational Administration

Principals have more responsibilities than ever before (Chrispeels, 2004). In addition to dealing with personnel issues, student discipline problems, parent concerns, and negative publicity in the media, principals must ensure that all public school students are academically successful (Gentilucci & Muto, 2007). The No Child Left Behind Act (2002) set very specific academic goals for the nation's public school students that include all students regardless of race/ethnicity, income, or disability achieving at grade level by 2014.

Effective schools are run by effective principals who share in common the ability to lead people, not just lead programs (Bottoms & O'Neill, 2001). They described effective principals as change agents. Similarly, O'Donnell and White (2005) listed facilitating effective teaching and learning as the primary responsibility for principals. The essential element in effective leadership is that principals who are able to significantly improve teaching and learning in the schools they lead are those that can influence teacher beliefs and attitudes about teaching and learning (Fullan & Stiegelbauer, 1991).

Accountability is too high for principals to provide all of the leadership that is needed for schools to be successful (Elmore, 2000). Sharing leadership responsibilities is the norm in highly effective schools that experience high levels of learning for all students (Blanchard & Bowles, 1998). Sharing leadership responsibilities includes making decisions based on teacher beliefs that all students can be successful (Fullan, 2001; Wesner, 1993). Sharing the belief that schools can successfully teach all students is strengthened as teachers and principals work together as teams that are focused on overcoming barriers to student learning (Schmoker, 1999).

In order to change school culture to improve student learning, principals must be prepared for the responsibilities of the principalship (Gamage, 2009; Hess & Kelly, 2007). Brent, Haller, and McNamara (1997) wrote that principal certification programs were not adequately preparing principals for the actual responsibilities that were encountered when principals enter the profession. Being underprepared for the responsibilities of the job has resulted in the failure of many new and inexperienced principals (Daresh, 1986). Realizing that stable school leadership is crucial to improving student achievement, efforts must be made to prepare, recruit, and retain quality school principals (Useem, Christman, Gold, & Simon, 1996). To recruit new school leaders, schools should identify and prepare capable teachers to become school leaders (Gilman & Lanman-Givens, 2001). Additionally, principal preparation programs should be restructured to focus on relevant issues instead of traditional coursework and new principals should be provided successful administrators as mentors (Bottoms & O'Neill, 2001). Certification should include extensive authentic application of effective school leadership instead of courses that are required in most universities (Sykes, 2000).

In addition to being prepared to successfully lead schools, principals must be given adequate time to have significant impact on school culture and student achievement (Hall & Hord, 2001). Changing the school culture to embrace school improvement efforts takes time (McAdams, 1997). Increased accountability, growing responsibilities, and long hours have resulted in many principals leaving positions or the profession (Richards, 2000; Schiff, 2002). If Hall and Hord are correct in stating that significant change takes three to five years, then retaining quality principals is of paramount importance (Archer, 2003; Hertling, 2001).

Purpose of the Study

The purpose of this study was to determine if principal tenure, principal stability, and principal educational experience in public education along with school-level variables predicted elementary school student achievement. A second purpose was to examine whether there is a significant difference between (a) levels of principal tenure and levels of principal educational experience on elementary school student achievement and (b) levels of principal stability and levels of principal educational experience on elementary school student achievement.

Methodology

An ex post facto correlational and group comparison research design was employed. In all, there were nine independent variables and 11 dependent variables. The independent variables included in the study were principal tenure, principal stability, principal educational experience, principal gender, principal race or ethnicity, square root of student enrollment, percentage of minority students, percentage of students identified as receiving free or reduced lunch, and percentage of students identified with a disability. The dependent variables were the schools mean scale scores for third and fifth grade students on the reading, English/language arts, mathematics, science, and social studies sections of the CRCT. In addition, fifth grade students were assessed on writing.

Utilizing the Governor's Office of Student Achievement website (GOSA), there were 1,316 of Georgia elementary schools identified. Of these schools, 293 schools were excluded from the study for not meeting the prekindergarten through fifth grade criterion. In total, the elementary school population was 1,023 schools. All student achievement data and school-level data were collected from a public website, the Georgia Governor's Office of Student Achievement (GOSA, 2010), whereas all elementary school principal data were collected from the Georgia Professional Standards Commission (GaPSC, 2010).

Student achievement as in most states is embedded in the state's context for determining student performance. The performance standards adopted in Georgia are the basis of the State's student curriculum. Georgia's students are to learn at each grade level. Schools administer Georgia's criterion referenced competency tests (CRCT) in the spring of each year to students in first grade through the eighth grade to assess whether students mastered the content. Students are tested in reading, English/language arts language arts, mathematics, science, social studies, and in selected grades writing. Through the test development process, the Georgia Department of Education (GaDOE) established content validity of each assessment. In addition, the GaDOE established instrument score reliability through the use of Cronbach's alpha, standard error of measurement, and the conditional standard error of measurement. All three indices indicated that each assessment was sufficiently reliable for its intended purpose.

Multiple regression was employed to determine which, if any, principal-level variables and school-level variables predict elementary school student achievement. The two-way factorial analyses of variance was used to determine whether (a) levels of principal tenure and levels of principal educational experience and (b) levels of principal stability and levels of principal educational experience affects elementary school student achievement. All statistical assumptions were checked and met for the statistical tests.

Results

In the 1,023 elementary schools, there were 742 (72.60%) female principals and 280 (27.40%) male principals. In addition, 660 (64.2%) principals were identified as White and 363 (35.48%) principals were identified as minority. Table 1 presents descriptive statistics for other principal variables such as years of educational experience, length of time at the school (tenure), and the number of principals (stability) at the school over the last 10 years. School-level variables included the square root of student enrollment, percentage of minority students (% minority), percentage of students with a disability (% SWD), and the percentage of students eligible for free or reduced lunch (% F R Lunch). Table 2 presents descriptive statistics for the dependent variables employed in the analysis. For grade 3 and grade 5, CRCT school mean scale scores included reading, English/language arts, mathematics, science, and social studies. In addition, grade 5 included the CRCT school mean scale scores for writing.

Table 1
Principal and School-Level Descriptive Statistics

	Mean	SD	Skewness	Kurtosis
Principal Experience	22.58	7.54	0.22	-0.56
Principal Tenure	3.57	3.10	1.00	0.35
Principal Stability	2.81	1.19	0.48	-0.06
SQRT Enrollment	24.67	4.46	0.52	0.67
% Minority Students	39.75	32.58	0.56	-1.07
% SWD	10.12	3.31	0.54	0.62
% Students F R Lunch	62.90	25.81	-0.51	-0.67

Note. n = 1.023.

Table 2
Descriptive Statistics for Grade 3 and Grade 5 CRCT School Mean Scale Scores

CRCT	Mean	SD	Skewness	Kurtosis
R3	831.15	11.27	0.17	-0.20
ELA3	830.41	11.51	0.33	-0.05
M3	830.96	18.37	0.22	-0.10
S3	828.43	16.91	0.13	-0.30
SS3	818.07	13.53	0.35	0.10
R5	825.14	9.71	0.31	-0.15
ELA5	834.57	10.90	0.47	0.28
M5	832.10	19.08	0.39	-0.05
S5	827.42	21.15	0.33	-0.11
SS5	815.52	14.66	0.46	-0.08
W5	211.65	12.39	0.47	0.59

Note. R-reading; ELA-English/language arts, M-math; S-science, and SS-social studies.

Pearson correlation coefficients were generated to examine the relationship among the independent variables (see Table 3). There was a moderate positive relationship between the percentage of minority students and the percentage of students identified on free or reduced

lunch, r(1021) = .63, p < .001. A moderate positive relationship was generated between the percentage of minority students and principal race or ethnicity, r(1021) = .60, p < .001. A weak to moderate positive relationship was produced between the percentage of students identified on free or reduced lunch and principal race or ethnicity, r(1021) = .43, p < .001. In addition principal tenure and principal stability yielded a weak to moderate negative relationship, r(1021) = -.42, p < .001. This is reasonable due to the fact that principal stability is defined as the number of principals at a school during a 10-yeara period and principal tenure is defined as the length of time that the current principal has been serving as the principal at that school. Principal tenure and principal educational experience yielded a weak to moderate positive relationship, r(1021) = .38, p < .001. A weak to moderate negative relationship was produced between the percentage of students identified on free or reduced lunch and the square root of student enrollment, r(1021) = .32, p < .001.

Table 3
Pearson Correlation Coefficients among Principal and School-Level Variables

					Principal			
	Principal	Principal	Principal	Principal	Race or	SQRT	%	
	Experience	Tenure	Stability	Gender	Ethnicity	Enrollment	Minority	% SWD
Principal	0.38*							
Tenure								
Principal	0.19*	-0.42*						
Stability								
Principal	0.13*	-0.06	0.03					
Gender								
Principal	0.07	0.01	-0.01	0.06				
Race or								
Ethnicity								
SQRT	0.01	-0.09	-0.05	0.05	-0.31*			
Enrollment								
%	0.01	0.02	0.05	0.07	0.60*	-0.25*		
Minority								
% SWD	0.03	-0.01	-0.02	0.01	-0.21*	0.14*	0.21*	
% Students F R Lunch	0.01	-0.01	0.12**	-0.01	0.43*	-0.32*	0.63*	-0.16*

Note. Gender: 0-male, 1-female; Race or ethnicity: 0-White, 1-minority. n = 1,023; *p < .001, **p < .005.

Each of the dependent variables (CRCT school mean scale scores) were regressed on the nine independent variables. The regression model was significant for the five grade 3 models. Table 4 presents a summary of the grade 3 CRCT analyses. It is interesting to note that the percentage of minority students and the percentage of students identified as receiving free or reduced lunch were significant in each of the models. As the percentage of minority students and the percentage of students identified as receiving free or reduced lunch increased, CRCT school mean scale scores decreased. Furthermore, principal tenure was significant in two of five models for grade 3 students. As the length of principal tenure at the school increased, the CRCT school mean scale scores increased.

Table 4
Summary of Regression Models for the Grade 3 CRCTs

CRCT	Overall Model Significance	Significant IVs	b	t	p
R3	$R^2 = .67, R^2_{\text{adj}} = .67, F(9, 1011) =$	% Minority	-0.03	-3.09	.002
	232.09, <i>p</i> < .001	% F R Lunch	-0.34	-32.72	< .001
ELA3	$R^2 = .66$, $R^2_{\text{adj}} = .66$, $F(9, 1011) =$	Tenure	0.09	2.35	.019
	216.02, p < .001	Principal R/E	1.38	-2.39	.017
	-	% Minority	-0.02	-2.32	.021
		% F R Lunch	-0.35	-31.91	< .001
M3	$R^2 = .63, R^2_{\text{adj}} = .63, F(9, 1011) =$	Tenure	0.48	3.53	< .001
	190.32, p < .001	SQRT Enroll	0.20	2.32	.002
	-	% Minority	-0.11	-7.12	< .001
		% F R Lunch	-0.46	-25.36	< .001
S3	$R^2 = .70, R^2_{\text{adj}} = .70, F(9, 1011) =$	% Minority	-0.90	-6.82	< .001
	261.25, p < .001	% F R Lunch	-0.47	-31.22	< .001
SS3	$R^2 = .63, R^2_{\text{adj}} = .63, F(9, 1011) =$	% Minority	-0.03	-2.28	.022
	191.67, <i>p</i> < .001	% SWD	-0.17	-2.13	0.34
	-	% F R Lunch	-0.40	-29.88	< .001

Note. Principal race or ethnicity (Principal R/E); Square root of student enrollment (SQRT Enroll). R-reading; ELA-English/language arts, M-math; S-science, and SS-social studies.

Like the grade 3 CRCT regression models, each of the grade 5 CRCT regression models were significant. Table 5 presents a summary of the grade 5 CRCT analyses. The percentage of students identified as receiving free or reduced lunch was significant in each of the six models. As the percentage of students identified as receiving free or reduced lunch increased, CRCT school mean scale scores decreased. Principal tenure and the percentage of minority students were significant in five of six models, whereas principal race or ethnicity was significant in three of five models. As the percentage of minority students increased, CRCT school mean scale scores decreased. Whereas as the length of principal tenure at a school increased, CRCT school mean scale scores were higher in schools with White principals. One other noteworthy variable that was significant in two of five regression models was the square root of student enrollment. In these two models as the square root of student enrollment. In these two models

An examination of levels of principal educational experience and levels of principal stability was conducted with a two-way factorial ANOVA. Principal experience consisted of three levels; (a) 14 years or less (1), (b) 15 years to 24 years (2), and (c) 25 years or more (3). Principal stability was defined as the number of principals at a school over a 10 year period. Principal stability consisted of three levels; (a) one or two principals (1), (b) three principals (2), and (c) four or more principals (3).

Table 5
Summary of Regression Models for the Grade 5 CRCTs

CRCT	Overall Model Significance	Significant IVs	b	t	p
R5	$R^2 = .65, R^2_{\text{adj}} = .65, F(9, 1011) =$	Tenure	0.19	2.70	.007
	208.59, <i>p</i> < .001	Principal R/E	-1.42	2.89	.004
	_	% Minority	-0.04	-4.30	< .001
		% F R Lunch	-0.29	-30.83	< .001
ELA5	$R^2 = .56$, $R^2_{\text{adj}} = .53$, $F(9, 1011) =$	Tenure	0.26	2.94	.003
	141.01, p < .001	Principal R/E	1.97	3.17	.002
	_	% Minority	-0.04	-3.40	.001
		% F R Lunch	-0.30	-25.12	< .001
M5	$R^2 = .55, R^2_{\text{adj}} = .54, F(9, 1011) =$	Tenure	0.38	2.46	.014
	135.06, p < .001	Principal R/E	4.05	3.67	< .001
		SQRT Enroll	0.35	3.55	< .001
		% Minority	-0.08	-4.35	< .001
		% F R Lunch	-4.92	-23.50	< .001
S5	$R^2 = .60, R^2_{\text{adj}} = .60, F(9, 1011) =$	Tenure	0.39	2.43	.015
	168.23, p < .001	% Minority	-0.08	-4.31	< .001
		% F R Lunch	-0.58	-26.51	< .001
SS5	$R^2 = .61, R^2_{\text{adj}} = .60, F(9, 1011) =$	% Minority	-0.03	-2.27	.023
	173.42, <i>p</i> < .001	% F R Lunch	-0.43	-28.54	< .001
W5	$R^2 = .53$, $R^2_{\text{adj}} = .52$, $F(9, 1011) =$	Tenure	0.30	2.96	.004
	126.11, p < .001	Principal Gender	1.21	1.97	.049
		Principal R/E	1.99	2.74	.006
		SQRT Enroll	0.38	5.74	< .001
		% F R Lunch	-0.32	-23.46	< .001

Note. Principal race or ethnicity (Principal R/E); Square root of student enrollment (SQRT Enroll). R-reading; ELA-English/language arts, M-math; S-science, SS-social studies, and W - writing.

A summary of the results for the grade 3 analyses are presented in Table 6. In all five analyses conducted, there was not a significant interaction effect nor was there a significant effect for principal experience. These results are not presented here. The effect of principal stability was significant in all five analyses. Schools with the greatest principal stability significantly outperformed schools with less principal stability. In all instances, schools with one or two principals over the 10 year period scored significantly higher than schools with one or two principals scored significantly higher than schools with three principals over the 10 year period.

In all six two-way factorial ANOVAs conducted, there was not a significant interaction effect nor was there a significant effect for principal experience. These nonsignificant interaction effects and the nonsignificant principal experience effect are not presented. However, the principal stability effect was significant for all six analyses (see Table 7). Like the grade 3 analyses, the grade 5 analyses included the principal stability effect. Schools with the greatest principal stability outperformed schools with less principal stability. Schools with one or two principals over the 10 year period scored significantly higher on the CRCT than schools with three principals over the 10 year period and schools with four or more principals over the 10 year period.

Table 6
Summary of Factorial ANOVAs for Principal Experience and Principal Stability (Grade 3)

	Stability	Post Hoc		LS Mean		
CRCT	Significance	Difference	Difference	(Group)	SE	n
R3	F(2, 1014) =	1 and 2	-2.44, p = .03	1 - 832.84	.66	445
	4.66, p = .01	1 and 3	-2.63, p = .025	2 - 830.40	.68	310
				3 - 830.22	.75	268
ELA3	F(2, 1014) =	1 and 3	-3.30, p = .004	1 - 832.12	.67	445
	5.56, p = .004			3 - 828.82	.76	268
M3	F(2, 1014) =	1 and 3	4.24, p = .027	1 - 833.07	1.07	445
	4.03, p = .018			3 - 828.83	1.21	268
S3	F(2, 1014) =	1 and 3	-3.93, p = .026	1 - 830.20	.99	445
	3.64, p = .026			3 - 826.27	1.12	268
SS3	F(2, 1014) =	1 and 3	-3.11, p = .029	1 - 819.44	.79	445
	3.48, p = .031			3 - 816.34	.90	268

Note. Interaction effect of principal experience and principal stability and the effect of principal experience were nonsignificant and not presented here. R-reading; ELA-English/language arts, M-math; S-science, and SS-social studies.

Table 7
Summary of Factorial ANOVAs for Principal Experience and Principal Stability (Grade 5)

-	Stability	Post Hoc		LS Mean		
CRCT	Significance	Difference	Difference	(Group)	SE	n
R5	F(2, 1014) =	1 and 2	-2.50, p = .007	1 - 826.68	.57	445
	4.93, p = .007		_	2 - 824.19	.59	310
ELA5	F(2, 1014) =	1 and 2	-3.25, p = .001	1 - 836.81	.63	445
	7.81, p < .001	1 and 3	-3.03, p = .005	2 - 833.58	.66	310
	_		_	3 - 833.77	.72	268
M5	F(2, 1014) =	1 and 2	4.16, p = .029	1 - 834.68	1.12	445
	4.36, p = .013	1 and 3	-4.11, p = .045	2 - 830.52	1.16	310
	-		-	3 - 830.57	1.26	268
S5	F(2, 1014) =	1 and 2	-5.72, p = .004	1 - 830.85	1.24	445
	5.77, p = .003	1 and 3	-4.59, p = .043	2 - 825.13	1.28	310
	-		-	3 - 826.26	1.40	268
SS5	F(2, 1014) =	1 and 2	-3.164 p = .01	1 - 817.54	.86	445
	4.96, p = .007		•	2 - 813.87	.89	310
	-			3 - 814.50	.97	268
W5	F(2, 1014) =	1 and 2	-3.25, p = .005	1 - 214.06	.72	445
	6.91, p = .002	1 and 3	-3.25, p = .001	2 - 210.81	.75	310
	-		-	3 - 210.81	.82	268

Note. Interaction effect of principal experience and principal stability and the effect of principal experience were nonsignificant and not presented here. R-reading; ELA-English/language arts, M-math; S-science, SS-social studies, and W-writing.

An examination of levels of principal educational experience and levels of principal tenure was conducted with a two-way factorial ANOVA. Principal experience consisted of three levels; (a) 14 years or less (1), (b) 15 years to 24 years (2), and (c) 25 years or more (3).

Principal tenure was defined as a length of time. Principal tenure consisted of three levels; (a) one year (1), (b) two or three years (2), and (c) four or more years (3).

The two-way factorial ANOVAs for grade 3 did not yield a single significant interaction effect or a significant effect for principal educational experience across the five CRCT school mean scale scores. The effect of principal tenure was significant at .05 alpha level for mathematics and very close to the .05 alpha level for reading (p = .06) and English/language arts (p = .07). For grade 3 CRCT mathematics, principal tenure was significant, F(2, 1014) = 5.36. p = .005. Schools with principals (LS Means = 834.15 SE = 1.33, n = 420) with at least four years at their current school outperformed schools in mathematics with principals (LS Means = 828.46, SE = 1.13, n = 303) with one year at their current school. For grade 3 CRCT mathematics, the interaction effect was not significant, F(4, 1014) = 1.66, p = .17, and principal experience was not significant, F(2, 1014) = 1.85. p = .16.

The two-way factorial ANOVAs for grade 5 were not significant for mathematics, science, and social studies. For grade 5 reading, English/language arts, and writing, principal educational experience was significant (see Table 8) and principal tenure was significant for English/language arts. Table 8 presents the results of these analyses. It is very interesting to note that schools with principals that had 14 years or less educational experience outperformed schools that had more educational experience across reading, English/language arts, and writing. The interaction effect between principal experience and principal tenure was not significant in any of the six grade 5 analyses. For English/language arts, principal tenure was significant, $F(2, 1014) = 4.50 \ p < .011$. Schools with principals (LS Means = 837.03 SE = 0.79, n = 420) with at least four years at their current school outperformed schools in mathematics with principals (LS Means = 833.96, SE = 0.67, n = 303) with one year at their current school.

Table 8
Summary of Factorial ANOVAs for Principal Experience and Principal Tenure (Grade 5)

		Post Hoc		LS Mean		
CRCT	Significance	Difference	Difference	(Group)	SE	N
R5	Experience –	1 and 2	-2.35, p = .044	1 - 827.00	.85	158
	F(2, 1014) =			2 - 824.64	.45	463
	3.00, p = .05					
ELA5	Experience –	1 and 2	-3.22, p = .008	1 - 837.36	.95	158
	F(2, 1014) =	1 and 3	-3.04, p = .002	2 - 834.14	.50	463
	4.70, p < .009		_	3 - 834.32	.61	405
	Tenure –	1 and 3	3.06, p = .009	1 - 833.96	.67	303
	F(2, 1014) =		-	3 - 837.03	.79	420
	4.50, p < .011					
M5	NS					
S5	NS					
SS5	NS					
W5	Experience –	1 and 2	-3.70, p = .008	1 - 214.64	1.01	158
	F(2, 1013) =			2 - 210.94	.58	462
	4.55, p = .011					

Note. NS = not significant.

DISCUSSION AND CONCLUSION

Principal tenure, educational experience, stability, race or ethnicity, and gender were examined in the context of student achievement. In addition, school-level factors of student enrollment, percentage of minority students, percentage of students identified with a disability, and the percentage of students receiving free or reduced lunch were examined. Results of this study indicated principal tenure and principal stability significantly impacted achievement of grade 3 and grade 5 students. CRCT school mean scale scores increased as the length of a principal's tenure at a school increased. Schools with greater principal stability also had higher CRCT school mean scale scores. These findings lend support to the statement of Hall and Hord (2001) that indicated keeping principal turnover low and retaining principals is critical to quality school improvement.

Leithwood, Seashore, Anderson, and Wahlstrom (2004) reviewed the literature focusing on the effects of school leadership on student learning. Their review concluded that school leadership is second only to classroom instruction among all school-related factors that contribute to what students learn at school, and leadership effects are usually largest where they are needed most. In addition, their review revealed three specific sets of practices to include such as setting directions, developing people and redesigning the organization.

While analyzing the principal-effects and school-level effects data the researchers noted parallels with other research related to applied practices, organization processes and organization design. This is an area for future study and may hold value for school improvement. The data also revealed not all factors of the research were predictors of achievement.

Principal educational experience was not a significant predictor of school mean scale scores on the CRCT in any of the regression models. In addition, the level of principal educational experience yielded conflicting results. In the factorial ANOVAs of principal educational experience and principal stability, principal educational experience was not significant for grade 3 or grade 5 student achievement. Furthermore, in the factorial ANOVAs that included principal educational experience and principal tenure, principal educational experience was not significant for grade 3 student achievement. However, at grade 5 principal educational experience was significant for three of six student achievement tests. The results for the three significant findings indicated principals with fewer than 14 years educational experience had significant higher student achievement than principals with 15 years to 24 years of educational experience and principals with 25 years or more educational experience. This is certainly worthy of a more in-depth investigation and runs contrary to the findings of Papa, Lankford, and Wyckoff (2002) that indicated principal experience is the most important indicator of principal success.

School-level variables affected elementary school student achievement. The percentage of students identified receiving free or reduced lunch and the percentage of minority students were stronger predictors of elementary school academic achievement than were the variables related to school principals. The socioeconomic status of students has consistently been found to be the primary indicator of student achievement (Andrews & Soder, 1987; Firestone & Wilson, 1989; Howard, 2008; Kannapel & Clements, 2005; Siegrest, Weeks, Pate, & Monetti, 2009). For the foreseeable future, it appears that schools will continue to struggle to overcome socioeconomic barriers in order to improve student achievement

All efforts to alleviate the negative impact of student socioeconomic status on student achievement are welcome. Complementary efforts to enhance leadership practices related to student achievement appear to be a worthy goal. Hallinger and Heck (1999) classified leadership practices into three categories to include "purposes, people, and structures and social systems." These practices focus on setting the conditions and developing leaders to better serve the leader challenged with increasing student achievement. Although important, student socioeconomic status is only one factor among many. The existence of other means to increase student achievement is encouraging. The findings revealed in this research may form the basis of future interventions. In all cases more research on each of the identified factors seems appropriate.

The research revealed the potential of interventions related to decisions on hiring and retaining principals. Hiring and retaining principals are important practices and must be mastered if schools are to meet the goals set by the NCLB Act. Schools must hire principals that are prepared to effectively lead schools. Moreover, it is imperative schools retain principals for a sufficient period of time in order to have a significant impact on student achievement.

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21st Century Challenges in Higher Education: Strategic Changes and Unintended Consequences

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In part, because many planned organizational improvements fall short of their intended goals, higher education administrators have not been able to promote sustained improvements. Most university leaders have been promoted into leadership roles without experience and training to enable them to foresee and address unintended outcomes of their decision making; often, the culture in higher education institutions promotes continuation of the status quo. However, in times of crisis, such as those related to reductions in budgets, many unintended consequences develop as leaders attempt to address change. Unintended consequences have implications related to the success or failure of planned change and higher education administrators must address such outcomes appropriately. This article discusses issues related to unintended consequences of policy changes in higher education.

INTRODUCTION

The changing expectations of stakeholders in higher education and approaches to funding and financial management of universities have necessitated development and implementation of numerous new policies. Universities are taking various steps to address reduction in state and federal funding. For example, because of a possible future federal requirement, universities will implement policies that graduate students will no longer be eligible for subsidized Stafford loans; that is, these students will be required to begin to pay interest on student school loans immediately. Currently, interest on loans is deferred through federal programs until six months after graduation. Many California universities are implementing policies that will cap enrollment at public institutions. Because of changes in funding formulas, some institutions are considering discontinuation of developmental coursework that enable low achieving students to access higher education. Still others are considering differentiated tuition based upon cost and demand. Such policies represent attempts to address immediate needs, but fail to address root causes and systemic issues. The intent of this article is not to

NCPEA International Journal of Educational Leadership Preparation, Vol. 8, No. 1– March 2013 ISSN: 2155-9635 © 2013 National Council of Professors of Educational Administration

debate the worth of various polices, but to discuss unintended outcomes related to such policy implementation. This discussion will focus on unintended or unpredicted consequences that are correlates of various policies implemented within higher education. Thornton, Beattie, and Brackett (2010) explained:

Unintended consequences, historically studied in business and organizational theory also apply in educational contexts. Policies and procedures are commonly implemented to produce a desired outcome; however, employees "game the system" to exploit the rules to produce an entirely different result. Unintended consequences may be foreseeable or unforeseeable. Likewise, unintended consequences may be positive or negative and examples are numerous. Prohibition promoted the interest of organized crime. Price controls lead to shortages. Government support of bio-fuels may have led to increased prices for food. (p. 2)

POTENTIAL IMPACTS

Often, when an organization implements a policy that is linked to high-stakes outcomes, the stakeholders will "game the system." Unfortunately within organizations, "People are unaware of the occurrence of unintended consequences, and these then come back into social reality as unacknowledged conditions or, even, again as unintended consequences of future actions" (Baert, 1991, p. 209). An example would be the case of the Education Testing Service SAT cheating scam. Universities set up high stakes outcomes; such that test scores dictate a major component of acceptance of students. As a result, high school students paid up to \$2,500 for a university sophomore to take the SAT for them (New York Post, 2012). Policy implementation can generate systemic unintended consequences that negatively influence the underlying programs. For instance, when university administrators implement differential tuition based on the cost of instructional programs, low-income students might be adversely affected. The mission of a university might be to provide increased access for underrepresented students; however, due to budget concerns, the implementation of a differential tuition policy would increase the cost of selected courses (e.g. engineering and lab classes). An unintended consequence of such a policy would decrease access for low-income students who could not afford to enroll in higher cost courses.

In efforts to promote accountability, some state legislators have discussed changing the funding metric for universities from full time equivalent students (FTE) to student completion rates. Such a policy could create grade inflation, as professors would be under some pressure to move marginally achieving students from an F to a D. Those students who received a D in a class instead of an F would be counted as a "completer;" thus, the university would receive funding for the student. The potential consequences include implications related to grade point average, mastery of required skills and knowledge, and financial aid.

In addition, such policy changes promote discussions related to the definition of completion and related manipulation of the system. Many questions develop. What is the definition of completion? Does the definition of completion relate to a course, a degree, or a certification? Will universities receive funding for students who drop a course? Although intent of such a policy is to promote accountability, unintended consequences include gaming of the system and financial barriers for students.

Some unintended consequences can promote organizational improvement. Morell (2007) explained, "unforeseen refers to situations where applicable analytical frameworks and experience were not considered when projecting what might happen when a program is implemented" (p. 446). Budget reductions can become a tool to facilitate organizational change. Consider a program with extremely low student enrollment staffed with tenured professor(s) who have political connections; university administrators could use budget reductions to close or reorganize such an inefficient program without negative political consequences. Alternatively, budget reductions could be used to reorganize a standalone student writing center into the English department in an effort to promote accountability. Many programs have developed significant political connections, which would make change difficult or impossible without a budgetary crisis.

From empirical studies, Harris and Ogbonna (2002) developed eight distinct categories of unexpected consequences associated with planned change of corporate culture:

- ritualization of change
- hijacked processes
- cultural erosion
- cultural reinvention
- ivory tower change
- inattention to symbolism
- uncoordinated efforts
- behavioral compliance

Each group of unintended consequences will be discussed in the following sections as they relate to higher education

Ritualization of Change

Many university leaders recognize the importance of organizational culture and develop interventions to improve the culture within their organization. Allaire and Firsirotu (1984) stated, "Indeed, the proposition that organizations have cultural properties, that they breed meanings, values and beliefs, that they nurture legends, myths and stories, and are festooned with rites, rituals and ceremonies has been gaining rapidly in popularity" (p. 194). Schein (2010) discussed the importance of rituals to promote change within organizational culture.

Many policies that require specific practices appear to create intended change but often, they do not produce real or lasting change. Indeed, such policies can promote culture change; however, they can result in a ritualization of the process. For example, the annual evaluations of professors generally address research, teaching, and service. Typically, a large component of these evaluations is self-reported data that is presented in a prescribed electronic format. As a result, a ritual develops, in which the quality of the paperwork becomes the criterion for the evaluations. However, because the paperwork is self-reported, the resulting evaluation often fails to address areas of weakness. In addition, professors are not observed during actual instructional time. The primary tool for evaluation of the teaching component is end of semester student feedback, which often measures only superficial characteristics and is not based on a well-defined set of outcomes. As a result, student feedback can become a reflection of the professor's popularity and/or ease of grading.

Thornton et al. (2010) explained that because universities consider student feedback the key component of instructor's evaluation, "in the most extreme cases, professors bribe students; for example, one professor had pizza delivered to class, before evaluations were collected" (p. 2). Professors teach the same classes, semester after semester, and use the same materials. As a result, most institutional ratings of teaching are good to excellent; however, such indicators fail to provide meaningful assessments of the quality of instruction or student outcomes.

Hijacking the Change Process

Change processes designed to promote program improvements are often subject to artful hijackers. Tenured professors are quite adept at redirecting planned changes in order to gain personal benefit. For example, efforts to align curriculum and teaching with student demands, future employment, and other stakeholder needs can be redirected; instead of creating classes to meet such needs, professors can use the planned change for personal benefit. For illustration, a policy implemented with the intention of increasing the number of full-time-equivalent students per professor per year could shift requirements from a two-two teaching load to a two-three load. However, such a policy might not reduce the professor's requirements for service and research; therefore, professors could attempt to justify keeping the same teaching load. Alternatively, a professor might strive to teach the same two-two load previously taught and add a low-enrollment specialty class of interest to the professor that would not necessarily meet the needs of the students and stakeholders. Or, professors could readily agree to teach additional sections of scheduled courses. In such examples, the total FTE could remain relatively constant.

With the expectation that student outcomes must increase, administrators could develop a culture of data-based decision-making. Such a shift in culture would require the development of a new set of skills and knowledge for both university administrators and faculty. This approach would command the effective use of valid and reliable data to inform major decisions. For example, departments could create linkages between evaluations of teaching and student outcomes. However, the analyst might hijack the process by using the data and knowledge to justify reducing or reorganizing specific departments through the auspices of budget cuts. Therefore, the intended cultural change of improving teaching effectiveness and student outcomes might result in higher teaching loads and classroom sizes and, as such, create a situation detrimental to effective teaching and learning.

Cultural Erosion

Specific actions of leaders or actual events within the university can erode efforts to maintain or promote a positive culture. For example, when a new dean is appointed, the faculty members within the college usually have a sense of intense involvement, enthusiasm, and general support. A typical approach is to appoint a series of committees with a variety of charges aligned with the goals of the new dean. Faculty have the opportunity for involvement; however, such efforts are often not rewarded because actual faculty evaluations are based on the traditional three factors of teaching, publications, and service, with service being the least important. Eventually, enthusiasm fades, support decreases, and the desired new culture erodes. Under such circumstances, Harris and Ogbonna (2002) suggested that

cultural erosion appears linked to lack of reinforcement of desired changes, non-alignment of behaviors, and amplification of inappropriate values.

For example, if the desired change is to promote economic and racial diversity but tuition rates increase, the unintended consequence may actually be decreased diversity. Or, university leaders could desire to increase funded grants and spend significant time discussing the value of grants; however, they fail to provide technical support and do not align the reward system to the stated goal of increased grants. Although initially the leadership behaviors appear to support grant writing, the absence of incentives and technical support actually erodes efforts to establish a grant writing culture.

A College of Education that we studied appointed a new administrative team, which implemented significant changes to the annual evaluation procedures that required vast amounts of documentation. Historically, evaluations had been connected to merit pay increases; however, concurrent with the implementation of new evaluation procedures, the university suspended merit pay. Although, the administration could not provide rewards to reinforce the desired behaviors, faculty was required to provide extensive additional documentation. Some faculty members viewed the new procedures as unnecessary paper work, which had negative impacts on faculty perceptions resulting in an erosion of organizational culture. In this example, as Harris and Ogbonna pointed out, the erosion of organizational culture can be associated with the failure to reinforce desired behaviors.

Cultural Reinvention

University leaders can attempt to promote change through the development of a new organizational culture. Harris and Ogbonna (2002) indicated an unintended consequence of cultural reinvention is the development of a culture that masks the existing culture instead of creating real and lasting change. Schein (2010) discussed the connection between organizational culture and productivity; within the university, this tends to be linked to funded research, nationally recognized research, and, to a lesser extent, student learning and meaningful contribution to the community. For example, a new university leader could encourage an organizational cultural change that promoted retention of students and increased diversity.

However, in many cases, planned organizational changes fail to address the root causes because implemented programs address the symptoms, not the underlying causes. As a result, the changes can affect the surface culture, but true culture remains the same—the "new" culture is only a camouflaged phenotype of the old culture. (Thornton, et al. 2010, p. 5)

The values of the organization have not changed—the old culture is reinforced and the new desired culture fades away.

An illustration of this unintended consequence is attempts by university leaders to increase student diversity on campus without providing appropriate resources. Leaders take the politically correct position. Speeches reflect the merit, the benefits to community and society, and the related moral imperatives. Leadership might discuss the importance of a diverse student body, but fail to develop the appropriate skills among faculty to recruit and retain diverse students

Increasing the diversity of the student population is difficult especially if deans and department heads lack knowledge, skills, and appropriate resources, or of equal importance, the motivation to implement structural change. Because professors are not forced into retirement, the number of "old guard" professors over the age of 60 has nearly doubled over the last 10 years (June, May 18, 2012). Retention of diverse students may not have been emphasized during their careers. Even when a leader has the knowledge, skills, and experience related to effective programs for diverse students, they may fail to create systemwide engagement and, resultantly, fail to create lasting change.

Another example of an attempt to promote change is the establishment of a data-based decision-making culture; data-based decision making is a high-leverage activity if properly implemented. Data-based decision-making could be used to promote improvements of both teaching and learning. However, if leaders are not proficient in the use of data, interpreting results, and monitoring progress or lack thereof, teaching and learning will not improve. Indeed, on the surface it can appear that a data-based culture has developed without meaningful changes in the classroom environment. Change efforts can fail when leaders are proficient in and dedicated to the planned intervention; however, if they are not proficient, failure is eminent.

Ivory Tower Change

Within the university environment, top-down policies characterize ivory tower change; often, such policies are veiled thinly behind committee recommendations. Deans and department heads are tenured faculty members, but most lack training in organizational theory and leadership. Commonly, they implement new policies or procedures designed to address specific symptoms. Such policies could relate to hiring practices, consolidation of authority, or program entrance requirements. For example a recently minted associate dean implemented a new procedure that required all paperwork to be processed through her office; it reflected a command and control philosophy. The stated reasons related to quality control, equal treatment for all, and the need to meet university requirements. Consequently, a backlog of paperwork developed, timelines were missed, and customer service (particularly, service to students) eroded. Faculty members complained and the leadership responded with a timeline and procedures for processing paperwork, even more cumbersome than the original model. The process continued and solutions created a situation worse than the initial problem itself—resembling "aegrescit medendo" (the remedy is worse than the disease).

Several unintended consequences can develop in relationship to top-down policies. Faculty can come to believe that the leadership does not understand the needs of faculty, that the paperwork is more important than students, or that new rules are designed to control faculty. A similar pattern can develop if the leadership determines that graduate assistants are to be hired through a college level process instead of a program level process. Many graduate students continue to apply for positions until they secure a position. If approval to hire is delayed by policies and procedures, a form of Ivory Tower Change, others will hire many of the highly qualified graduate students, thus reducing the pool of candidates. The unintended consequence is the brightest and best graduate students will tend to migrate to the most responsive colleges or most timely funding.

As another illustration, high-level administrators might implement a policy requiring across the board furloughs during a budget crisis. To create equity, all similar personnel will

have uniform furloughs, regardless of their funding source. An unintended consequence might be that departments on grant funding could be required to return monies that had been budgeted for personnel. In essence, because grant funded employees cannot receive salaries while on mandated furloughs, funds might revert to the grantor. In addition, this situation could result in furloughed personnel seeking employment elsewhere or grantors choosing other grantees.

Inattention to Symbolism

The sixth group of unintended consequences identified by Harris and Ogbonna (2002) was characterized by the failure of leadership to attend to symbolism within the organization. Many researchers have noted the importance of symbols in relationship to organizational culture. Hofstede (1998) stated, "Culture is a characteristic of the organization, not of individuals, but is manifested in and measured from the verbal and/or nonverbal behavior of individuals – aggregated to the level of their organizational unit" (p. 470). According to Schwahn and Spady (1998), organizations have culture, which "take root, grow, evolve, and silently control the attitudes and behaviors of members even if no one is paying attention" (p. 67). Significant indicators of the culture of an organization include symbols, rituals, routines, stories, and myths (Deal & Peterson, 1999). These indicators reflect the norms, beliefs, and values of the organization; furthermore, they reinforce an anticipated or desirable shift in organizational culture. At a basic level, if the university leadership fails to address organizational symbols and rituals, effective shifts in culture are difficult.

Harris and Ogbonna (2002) found that, "inattention to the symbolic dimensions of culture change resulted in a series of unintended impacts, which significantly undermined culture change efforts" (p. 43). A small College of Education (faculty less than 50) that we studied, was restructured from four departments into a single unit. Administrative responsibilities, clerical support, hiring graduate students, control of doctoral programs, and authority were shifted from department chairs to an associate dean. The associate dean lacked an understanding of the significance of the departmental culture and the importance of symbols, rituals, and beliefs associated with departments. As a result, current and potential future students expressed concerns about the future of the college, the department, and the value of their graduate degrees.

Uncoordinated Efforts

Unintended consequences can occur when planned cultural change is misaligned with existing policy or the development of new policy. A ubiquitous illustration of uncoordinated efforts occurs when a dean or department head implements a directive without appropriate support or involvement of faculty. Given increased expectations and restricted funding, upper level administrators of universities are under significant pressures. As a result, they might implement changes without meaningful input from faculty, which can be a source of frustration and lead to obstruction.

Baum (2007) pointed out that state allocations have shifted towards merit-based grant aid, which can be problematic "because of the eligibility criteria, middle- and upper-income students are more likely than lower-income students to receive these grants" (p. 17). Hauptman (2007) argued that one reason for this is "merit based admissions policies tend to

favor better-prepared students, who come most frequently from better and more affluent high schools" (p. 6). As a result, middle and upper income students gravitate to universities with relatively low tuition costs and merit based support to maximize benefits (Hauptman, 2007). Thus, such practices would not align with efforts to support the neediest students.

Many top-down directives receive little to no attention because the resources are unavailable, responsibilities are unclear, and accountability structures are lacking. Often, when two initiatives compete for limited resources, both are unsuccessful and they unintentionally discount each other due to the uncoordinated actions (Thornton et al., 2010). Planning, resource allocations, and data-based decision making could identify many potential negative unintended consequences; as such, leaders could develop an application base for planned change. Lacking these supporting structures, middle managers will make decisions based on personal values, experiences, and beliefs, which are often misaligned with the university vision and mission. Morrell (2007) stated that, "[u]nforeseen consequences emerge from weak application of analytical frameworks and from failure to capture the experience of past research" (p. 445).

Behavioral Compliance

Surface compliance or minimal responses are common outcomes of interventions. Harris and Ogbonna (2002) discussed the paradigm involving the conflict between planned organizational change and behavioral compliance—many planned cultural interventions fail to influence the behaviors of people within the organization. In the study, they found that the values, beliefs, and opinions of the employees—the organizational culture—had not changed. They provided illustrations of changes in overt behaviors connected to interventions; however, the organizational culture resisted true change.

The organizational cultures within departments or colleges often promote silo effects with self-serving agendas. Tenured track faculty function, for the most part, as independent contractors—they meet established university norms and expect to work independently. Professors have little if any contact with high-level administrators. As such, if upper-level administrators design a culture intervention, middle managers are responsible for implementation. Often, interventions are connected to metrics that assess symptoms, but they do not measure root causes of problems.

For example, we studied a college within a university with a newly appointed leadership team consisting of a dean and two associate deans. A series of new procedures were implemented and several committees were appointed. New administrators implemented a system that required detailed logs of copies made by graduate assistants and limited printing for faculty. In response, some faculty and graduate students used a printer that did not have a copy code control. On the surface, it appeared the desired change occurred, but in reality, the same amount of (or more) paper and ink were utilized, but not tracked. Another unintended consequence of limiting professors' copies was that some professors stopped providing copies of materials for their students and utilized their standard allotment for copies for research related activities. Many professors provided electronic copies and students used machines at places of employment to make copies.

At the same time graduate students were required to submit monthly time sheets to detail hours worked. Many gamed the system; graduate students filled out one sheet, made enough photocopies for the entire year, and on a monthly basis produced the same timesheet.

Essentially, graduate students complied behaviorally with the new policy, but no real change occurred because of the policy.

DISCUSSION

The general public, members of congress and and state level leaders have directly, and indirectly, attacked PK-20 education. University leaders must either implement interventions or retreat to their tenure positions as professors. Many extremely well meaning university leaders have worked to foster new cultures that are supportive of the needs of the 21st century. However, the requirements for effective university leadership greatly exceed the demands of the past. On one hand, leaders must design and implement interventions; while on the other, they must be capable of identifying unintended outcomes. Facilitating positive changes to organizational culture is challenging, requires time, and necessitates systems thinking (Senge, 2006). This is especially true, with respect to the culture of universities, as the challenges are magnified by characteristics of universities (e.g. tenure, bureaucratic structures, and existing cultures). At a basic level, unintended outcomes are common because leaders fail to anticipate, plan, and adjust to systemic factors. Morell (2005) identified several reasons that unintended consequences occur:

- Multiple interacting processes or programs are at work in schools
- Functions in social organizations are nonlinear
- Feedback loops take longer than expected
- Planned outcomes are often dependent on initial conditions
- Leaders cannot define all relevant conditions
- Programs and staff adapt to environmental conditions
- Decisions are made on incomplete information
- Leaders fail to detect early relevant changes

University leadership is significantly different from the role of a university professor. Effective university leaders must plan appropriate cultural interventions; at the same time, they must cleverly address unintended consequences. Regrettably in many cases, by the time symptoms related to unintended consequences become apparent, significant resources, including time, funding, and personnel, have been committed. It is not possible to avoid all unintended consequences, but leaders must plan for foreseeable consequences.

Although unintended consequences are impossible to avoid in their entirety, they "are not by definition unknown to the actor who initiated the action" (Baert, 1991, p. 201). Current and future university leaders need to address the unintended outcomes associated with the expectations of stakeholders and future demands associated with the 21st century. Common leadership styles, existing information systems, and traditional approaches may be insufficient to address unintended outcomes. "The observation and capture of potential negative impacts requires the development of analytical frameworks with requisite subject specificity" (Thornton et al., 2010, p. 9); university leaders must evaluate both intended and unintended outcomes.

Both foreseeable and unforeseeable consequences develop in all organizations. Seasoned university leaders have experienced many common unintended consequences; however, learning by experience alone is not acceptable. To the fullest extent possible,

university leaders should prepare to address unintended consequences; moreover, they should anticipate such events and plan accordingly. The skills and knowledge necessary for effective change are more important today than ever. Finally, because university leaders must promote continuous improvement, they must be able to plan for unforeseen outcomes; otherwise, many outcomes will appear to be random, root causes will not be addressed, and effective change will not occur.

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Alternative Administrative Certification: Socializing Factors Influencing Program Choice

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This study used an organizational socialization lens to examine factors influencing participants' decision to pursue the principalship and choice to engage in an alternate administration certification program. Through an analysis of participant focus groups and interviews, factors emerged from the codes that were compared with dimensions of a socialization framework. A key finding is the intersection of socializing factors that influenced participants' decisions to pursue the principalship and their choice to pursue an alternative preparation program. Two factors that influenced their decision to pursue the principalship, internal processes related to seeing themselves as change agents and their image of the role of the principal as a vehicle for impacting educational outcomes, connected with the innovative organizational/contextual philosophy of the alternate preparation program. This intersection had a major influence in how these aspiring principals came to pursue this alternate principal preparation program.

INTRODUCTION

The educational landscape is changing in the U.S. with public school restructuring that includes state and city take-over of schools and charter schools. With restructuring comes the question of how to prepare a 'new' type of school leader, a leader able to maneuver within various organizational structures and lead practices that may vary from traditional schools. States have authorized alternative leadership programs, such as those managed by New Leaders for New Schools (NLNS), with the expectation that these programs will prepare this new type of school leader (Campbell & Grubb, 2008; National Governors' Association, 2008).

Research examining alternative certification programs for educational leaders, however, has yet to expanded at the same rate as implementation of these programs (Corcoran, Schwarts, & Weinstein, 2012; Hickey-Gramke, 2006; Hickey-Gramke & Whaley, 2007). In this study, we explore aspiring principals' involvement in Preparing Leaders for Tomorrow (PLT) [all names pseudonyms], an alternative principal preparation program managed by City Schools (CS), a not-for-profit organization. We examine factors that influenced aspiring principals' choice to pursue PLT as their administrative principal certification program. We postulated the reasons for pursuing administrative certification through PLT are intertwined with aspiring principals' reasons for pursuing the principalship. Consequently, we examined the factors for both pursuing the principalship and choosing PLT.

NCPEA International Journal of Educational Leadership Preparation, Vol. 8, No. 1– March 2013 ISSN: 2155-9635 © 2013 National Council of Professors of Educational Administration

FRAMING THE ALTERNATIVE PRINCIPAL PREPARATION CONTEXT

Some states have vigorously implemented legislation and policies allowing variations in public school structures and governance, such as charter schools, to address a variety of school issues, including school take-over (National Association of State School Boards of Education, 2007). States have also expanded administrative certification options allowing alternative paths to the principalship to support the volume and variation of these new school structures (National Governors' Association, 2008). The state in which this investigation occurred expanded administrative certification other than the traditional requirement of obtaining a master's degree in educational administration from an institution of higher education. The state now awards administrative certification through organizations beyond school districts or institutions of higher education, such as not-for-profit and for-profit organizations. The state authorizes a provider to grant certification based on a Request for Proposal (RFP), which outlines the general guidelines for program components, including candidate selection, innovative curriculum and the type of practicum experience provided. Candidates to this alternate path to certification must have a valid teaching license and have a passing score on the School Leaders Licensure Assessment (SLAA) at the completion of the program.

We recognize the wide variation in how alternative certification is defined within and among states, including obtaining alternative certification from universities and school districts through face to face and on line delivery (Hickey-Gramke, 2006); however, for the purposes of this study, we define an alternative administrative preparation programs as programs organized and managed by non-traditional entities, specifically not-for-profit or for-profit organizations. Within this definition alternative programs may be secondarily associated with colleges and school districts, but the organizations managing the principal certification program are legally responsible directly to the state in which they are authorized. This definition allows an examination of the kinds of preparation programs currently being promoted by the growing number of proponents of alternate forms of public education, such as charter schools (National Alliance for Public Charter Schools, 2008), and education policy reformers calling for innovation and deregulation of principal preparation (Herrington, 2005).

AN ORGANIZAIONAL SOCIALIZATION LENS

Researchers examining administrative preparation have outlined features of effective administrator preparation, highlighting partnership between higher educational institutions and school districts and in-house district preparation (Corcoran, Schwarts, & Weinstein, 2012; Darling-Hammond, LaPointe, Meyerson, Orr, & Cohen, 2007; Jackson & Kelley, 2002), yet little is known about administrator certification programs provided primarily by entities outside the traditional sphere of universities and school districts (Campbell & Grubb, 2008). In our exploration of the literature, we found no peer reviewed research outlining why aspiring principals choose to receive certification from alternative providers.

Several research studies of participants in traditional administrative preparation programs, however, have outlined factors influencing individual's decisions to pursue the principalship (Bass, 2006; Begley, Campbell-Evans, & Brownridge, 1990; Coggshall, Stewart, & Bhatt, 2008; Harris, Arnold, Lowery, & Crocker, 2000; Leithwood, Steinbach, & Begley, 1992; Pounder & Merrill, 2001). A common finding from each study suggests

aspiring principals are motivated to pursue the principalship as a means to positively influence educational outcomes. Both Harris, Arnold, Lowery, and Crocker (2000) and Bass (2006), through surveys of aspiring principals in university programs, found the reason most given for pursuing the principalship was to "make a difference." Other high ranking indicators included positively impacting people, a personal challenge, ability to initiate change, and the desire for professional challenges. Coggshall, Stewart, and Bhatt (2008), through focus groups and individual interviews, realized similar findings. Aspiring principals in this study "believed that principals can have a profound impact on the lives of children and the viability of a school and community. They wanted to become a principal so they too could make a difference" (p. 5).

Researchers have employed organizational socialization theory to explain how aspiring principals develop an understanding of the role of the administrator and how this understanding influences their engagement in the profession (Begley et al., 1990; Crow & Glascock, 1995; Leithwood et al., 1992). Van Maanen and Schein (1977) defined organizational socialization as "the process by which an individual acquires the social knowledge and skills necessary to assume an organizational role" (p. 3). Van Maanen (1976) suggested that individuals pass through three phases in the process of organizational socialization: (1) the choice-anticipatory phase; (2) the entry-encounter phase; (3) the continuous-metamorphosis phase. In the choice anticipatory phase, an individual's "preparatory learning occurs via the person's family, peers, educational institutions and cultural influences" (p. 81). Individuals in this phase evaluate the correlation between personal goals and values and those of the organizational role that they may wish to pursue. The entry-encounter phase occurs as individuals enter an organization as a newly recruited member and the continuous-metamorphosis phase occurs as an individual works out the problems associated with the entry-encounter phase. Crow and Glascock (1995) postulated a similar theory of organizational socialization. They also suggested three phases in the socialization process: (1) exploration; (2) giving up the previous role; and (3) adjusting self and new role to each other. In this study, we examine the exploration phase, where the individual envisions the possibility of becoming the principal and makes the decision to seek the position, which may include research, investigation, and gathering other's opinions.

Several studies have examined the socialization of aspiring principals as they participate in certification programs and in the early years of practice – phases two and three of the socialization process (Aiken, 2002; Browne-Ferrigno, 2003; Browne-Ferrigno & Muth, 2004; Crow & Glascock, 1995; Greenfield, 1985; Leithwood et al., 1992). Little, however, is known about the initial phase, the choice anticipatory-exploration process (Beglev et al., 1990). Begley, Campbell-Evans, and Brownridge, adapted Leithwood, Steinbach and Begley's (1992) framework that explored phases two and three of Van Maanen's (1976) socialization process for early career principals. Begly and associates specifically examined the choice-anticipatory socialization influences (phase one) as aspiring principals pursued the principalship and the principal preparation program. The adapted choice-anticipatory socialization model outlined four dimensions: (1) internal processes; (2) relational, (3) organizational and contextual; and (4) image of the role of the principal (Table 1). Bagley et al. defined internal processes as the values and cognitive operations that influence aspiring principals' choice of the principalship and program. They viewed internal processes as being an antecedent to other early socializing influences for the aspiring principal. The relational dimension in the model included the influences of superordinates, peers, and subordinates. The organizational/contextual dimension included organizational culture, formal training,

informal training, communication networks, and planned critical events. The final dimension, image of the role of the principal, contained perceptions of practices and decision making processes used by the principal.

Table 1
Begley, Campbell-Evans, Brownridge (1990) Choice-Anticipatory Socialization Framework

Socializing Dimensions	Description of Dimension
Internal processes	Socializing influences of aspiring principals' values and cognitive processes on decisions to pursue the principalship and certification programs. Considered antecedent to other early socializing influences.
Relational	Socializing influences of super-ordinates, peers, and subordinates on aspiring principals decisions to pursue the principalship and certification programs. Begley et al. (1990) included family members in findings.
Organizational/contextual	Socializing influences of organizational culture, formal training, informal training, communication networks, and planned critical events on decisions to pursue the principalship and certification programs.
Image of the role of the principal	Socializing influences of the perceived role of the principalship, including perceived goals ascribed to the principalship, such as school/classroom factors, strategies used by principals, on decisions to pursue the principalship and certification programs.

Begley and colleagues (1990) determined that factors within the internal processing dimension primarily influenced the participants' choice to pursue the principalship. Participants perceived the principalship as challenging, interesting, and meeting their need for responsibility. Secondarily, participants chose to pursue the principalship based on their image of the role of the principal. Aspiring principals expressed the belief that the principalship provided a way to positively contribute to students and schools and that they possessed the knowledge and skills to do so. Begley et al. also noted about 25% of the respondents listed, 'making a difference' as a factor influencing aspirants' interest in administration, and categorized this factor within the organizational/contextual dimension.

When Begley et al. (1990) examined the reasons aspiring principals chose a specific preparation program, 12 factors surfaced. All factors were categorized into two dimensions, organizational/contextual and relational. Nine of the 12 factors fell within in the organizational/contextual dimension. Within this dimension over three quarters of the respondents perceived the financial support and availability of the program as influential factors in their decision. In the relational dimension, one of three factors was dominant; over a third of the respondents were influenced by others, including colleagues, family, and friends.

Implications outlined by Begley et al. (1990) suggested factors influencing individuals towards the principalship and to specific principalship preparation programs need to be considered in the recruitment process of aspiring principals. These researchers recommend improving the recruitment processes by promoting certification program features that overlap with socialization dimensions and factors influencing prospective principal decisions to pursue the principalship. Researchers examining principal preparation programs extol the importance of recruiting highly capable candidates and point to the often lack of such effective recruiting (Darling-Hammond et al., 2007; Educational Research Service, 2000; Jackson & Kelley, 2002; Levine, 2005). Investigating how choice-anticipatory socialization factors interact with aspiring principals' choice to pursue a specific alternative administrative

principal certification program, like PLT, may open insights into principal recruitment.

THE PLT CONTEXT

PLT became an alternate provider of principal certification in early 2008. CS, the parent organization of PLT, was founded in 2005 as a not-for-profit community foundation committed to improving economic progress and opportunities for citizens. Involved in both settling school desegregation litigation and regional recovery after natural disasters, CS became particularly interested in school redesign to improve student achievement in low performing schools as a means to improve economic development. School leadership emerged as critical factor in school redesign and improvement, which lead the organization to pursue an alternative principal preparation program. In addition, CS also applied to manage three state take-over schools, which they began supervising in the 2008-2009 school year as charter schools.

In the development phase of PLT the Director of CS approached a local university with the proposition of a partnership in preparing school leaders for more autonomous schools, such as charter schools. The emphasis for the curriculum would merge principles of business used in non-profit organizations, labeled social entrepreneurship, and best practices of instructional leadership. CS saw this combined content as particularly relevant to leadership in charter schools. Specifically, the four components of PLT were autonomy, social entrepreneurship, accountability, and distributed leadership. The social entrepreneurship leadership elements became the most unique feature of the PLT curriculum as outlined by CT's application. The social entrepreneurial leader model was based on transformation through initiation and risk-taking, particularly advocated for school start-ups, through either reconstitution of faculty or transition to a new vision/mission with existing faculty (Hess, 2007; Wilson, 2006). A social entrepreneurial school leadership model seeks to 'enculture' aspiring leaders to a sense of autonomy in their decisions while continuing to promote working collaboratively within teams (Wilson, 2006). Both the College of Education and College of Business joined PLT as subordinate partners in the application to the state, agreeing to assist with consultation and instruction. However, because of funding and differences in program goals, the only contribution the university made to the program was allowing PLT students to take a one business class focused on entrepreneurship and education faculty occasionally acting as guest lectures (author three acted as a guest speaker the first year of the program).

Beyond curriculum, PLT was designed as a cohort-based program. Participants in the program were not required to have a master's degree nor would completion of PLT result in a master's degree. PLT was also given permission by the state to recruit individuals without K-12 teaching experience. The PLT program encompassed four phases (Table 2). Instruction was primarily delivered through daily seminars given in the summers by outside experts. The director of CS, a former principal and university educational leadership instructor, provided the majority of the instruction. The first cohort participants were placed in full-time paid leadership positions, took one business class through the university partner each semester, and attended weekend seminars once a month. First cohort participants were also required to attend one national leadership conference. Due to less funding than anticipated, second cohort participants were not guaranteed a paid administrative position, although participants were guaranteed a paid teaching position in a school with some administrative tasks if they were

not already in such a position. Second cohort participants attended just one university course and were not required to attend a national conference. The second cohort also attended weekend seminars once a month. In addition, both cohorts met together monthly and a full time coach visited each participant in their placement. Both cohort participants were also guaranteed two additional years of mentor support beyond certification from PLT staff.

Table 2 Structural Phases of PLT

Phase	Description
Recruitment Phase	Recruitment of candidates and development of job placement in participating schools. Participant selection from application screening and panel interviews.
Summer I	Five-week full day institute designed to build a foundation of theory, best practices, and technical know-how. Institutes include case studies of real-world school problems. Instruction occurred through one to several day seminars from PLT director and outside experts.
School Year I	School-based residency augmented by the placement mentor and PLT/CS coach. Candidates involved in cohort meetings (monthly) and seminars periodically. First cohort, participants enrolled in one graduate-level course in in the college of business fall and spring and attend one national conference. Second cohort, participants enrolled in one business course and were not required to attend national conference.
Summer II	Five-week full day institute designed to build and hone skills in the areas of leadership. Instruction was supposed to occur through one to several day seminars from outside experts; however, the first cohort just attended some of the initial summer activities of the second cohort due to limited funding.
School Year II and II	Continued CT coaching support for new principals for 2 years following certification.

Recruitment for PLT cohorts included personal contacts with local educational and non-educational agencies, open recruitment forums, involvement in local educational panels, newspaper advertisements, and individual contact with school personnel in the charter schools managed by CS. Regional and national organizations, such as Teach for American (TFA) and charter school associations, were contacted to introduce PLT to alumni and members. CS staff also handed out materials in other educational settings, such as district and university aspiring principal programs and meetings of National Board Certified teachers. The selection process for PLT participation began with an application which was screened by CS staff. The second phase of selection included an interview by a panel of CS staff and invited guests. The first cohorts yielded only five participants from a limited application pool due to late program approval from the state. One candidate left the program after the first summer session. The second cohort included 18 participants as this cohort's first summer session began.

RESEARCH METHODS

Our two research questions were: (1) what factors influenced an individual's intentions to pursue the principalship? And, (2) what factors lead aspiring principals to choose PLT, an alternative principal preparation program, as their pathway to certification? Most of the current research foundational to this study was based on survey methodology. From an interpretive frame (Denzin & Lincoln, 2011), we believed understanding participants' perceptions in their own words would provide additional insights. Also, the paucity of research available concerning why aspiring principals choose alternative preparation programs led us to consider the rich description participants' interview responses might give to the investigation of this topic.

Data Sources

The primary data source for this study came from in-depth semi-structured individual and focus group interviews. All four participants in year one were individually interviewed in August of 2009 and four randomly selected participants from year two were interviewed July 2010. Due to the larger number of participants in year two we chose to conduct focus group interviews in July 2010 in order to triangulate individual interview data. All of the researchers were involved in individual interviews allowing us to discuss field notes and impressions. The individual interviews ranged from 38 to 53 minutes while the focus group interviews were 59 to 70 minutes in length. All interviews were recorded and transcribed. The interview protocol for individuals and focus groups included questions related to participants' views of principal leadership, why they were interested in the principalship, and their interest in PLC, as well as asking about the participants' professional background. The following are examples of interview questions: When did you begin thinking about pursuing the principalship; what are your reasons for pursuing the principalship; how did you hear about the PLT principal preparation program; why did you select PLT; and what are the primary goals or emphasis of this program? Our data also included archival documents and results from in-depth semistructured interviews with the CT Director and Project Director for PLT, to understand the organizational and philosophical features of the program. Documents included the RFP grant to the state, the CS web site, brochures, and newspaper advertisements.

Participants

Participants involved in the individual interviews had varied backgrounds with a majority entering education through non-traditional routes. Five of the eight were alternately certified as teachers (Gladys, Hope, Mille, Titus, and Peter) with teaching experience ranging from four to 20 years. All were secondary teachers with the exception of Ethel. Gladys, Chrystal, Hope, and Micca were certified in Language Arts, while Millie, Titus, Peter taught math. Three were currently teaching or had recently taught in a charter school or alternative school (Gladys, Titus, Paul). Three held advanced degrees: Chrystal a master's degree in education, Millie a master's in business, and Titus a PhD in educational technology. Millie had already obtained principal certification and had chosen to participate in PLT in order to have a better possibility of obtaining a principal position. Three, Millie, Micca, and Paul, held leadership positions in their schools, curriculum specialist, literacy coach, and dean of students. Five, had

been employed in other sectors before becoming teachers (Hope, Millie, Titus, Micca, Peter), including news reporter, chemist, food service management, factory worker, and accountant.

Several of the 14 remaining focus group participants also volunteered background information. Two individuals were already principals of charter schools, Matt and David but did not have certification, while Betty was an assistant principal without certification. Three additional participants had master degrees and certification in school administration (Deedra, Tabatha, and Phoenix), yet had no administrative position. Six participants held bachelors or master's degrees in business and had worked in the private sector before moving to education (Mark, Rita, Betty, Frank, Zack, Ellen). At least three of the focus group participants had received their teaching certification alternatively (Mark, Rita, Zack).

Analysis

As suggested by Strauss and Corbin (1998), our analysis of participant interviews began by inductively coding words and word phrases related to participant's decision to pursue the principalship or to choose PLT. Using Atlas-Ti 6, we also added an identifier indicating whether the specific code instance was connected to pursuing the principalship or PLT. Using a constant comparison approach (Charmaz, 2006), the researchers consolidated individual codes into categories and then consolidated and organized further to themes. These themes represent factors that had an impact on aspiring principals' choice to pursue the principalship and PLT. Once factors (themes) were identified, the researchers independently compared them to the dimensions of the Begley et al. (1990) choice-anticipatory socialization framework. The researchers then met, and through consensus identified which factors corresponded to each dimension. By specially identifying which codes corresponded to pursuing the principalship or choosing PLT, we were then able to connect which of the dimensions within the Begley et al. framework had the greater influence in either pursuing the principalship or PLT (Table 3).

Table 3
Themes and Coding Instances

Themes	Codes	Code Instances Related to PLT	Code Instances Related to Interest in Principalship.
View of Self	Change agent/reformer, Leader (teacher/administration), Alternative view of education, Business/education comparisons	0	39
Program Features and Structures	Cohort/Network, Internship/support, Mentor, Summer residency, Don't have Master's degree, Get a Job	52	1
Program Philosophy	Data Driven, Entrepreneurial, Innovation, Business Model, RLRP beliefs and values, Models of leadership, Instructional methods/curriculum	63	6
Timing and Opportunity	Timing and opportunity, Certification, Board with Teaching, Recruitment Tools	30	19
Influential People	Principals, Colleagues, Family	1	30

Making a Bigger Bigger impact, Dissatisfaction Traditional Schools, Ineffective Teachers, Ineffective

Principals/could Do It better, Student achievement, Models of leadership, Lack of

innovation

FINDINGS

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We identified 6 factors (themes) representing participants' reasons for pursuing the principalship and choosing PLT. When examining why participants chose the principalship, our analysis yielded four factors across three dimensions of the socialization framework (Table 4). In determining what influenced participants' choice of PLT, three factors emerged in two dimensions within the socialization framework (Table 4). Participant choice to pursue the principalship and PLT overlapped in only one factor within one dimension – timing and opportunity within the internal processes dimension (Table 4).

Table 4

Factors within Dimensions for Choosing the Principalship and PLT

	Internal Processes	Relational	Organizational/ contextual	Image of the Role
Interest in Administration	View of Self	Influential People		Bigger Effect
	Timing and Opportunity			
Interest in PLT	Timing and Opportunity		Program Features	
			Perceived Program Philosophy	

Factors Influencing Pursuit of Principalship

The four factors associated with why participants chose the principalship – view of self, timing and opportunity, influential people, bigger differences on educational outcomes – correspond to three dimensions of the framework. The three dimensions were – internal processes, influential relationships, and image of the role of the principalship. The participants' responses, representing factors that led to these findings, are presented by their connection to the dimension outlined in the Bagley et al. (1990) framework.

Factors associated with the internal processes dimension. The values and cognitive process of the participants suggested that two socializing factors influenced their desire to pursue the principalship: (1) perceptions of themselves based on experiences (view of self), and (2) the timing and opportunities that presented themselves related to the principalship. Within these factors, participants expressed specific examples that underscored how these influences connect to the dimension.

View of Self. Most of the participants in this study came to education as a career through non-traditional routes. Non-educational career backgrounds seemed to influence the participants' view of themselves in relationship to the educational setting and leadership within the educational setting. When asked why they chose to pursue the principalship,

individuals frequently compared their experiences outside education with the issues that occurred inside schools. Millie, who was a cohort two participant, with alternate teacher certification, a master's degree in leadership, and 10 years' experience as a chemist, typified this interaction of past career experiences and view of self with respect to leadership in her individual interview:

I have somewhat of a business mindset and the background with a very strong company. When I look at problems, I think I'm good at understanding what the problem is, not assuming that the symptom is the problem; but, not only that, realizing that a lot of times this out-of-the-box thinking is how to solve the problem. And that's just something that comes out natural for me. I'm not usually the one who says we can't do something...

The notion of connecting prior career experiences with leadership outside of education into their decisions to become principals permeated responses by the participants.

Millie's quote also underscores how these individuals' perceptions of their personal characteristics influenced their decisions to pursue the principalship. Without exception, each individual expresses their view of self as an "out-of-the box" thinker, "reformer," or "innovator." Most also indicated their need for a challenge in their work. In her response to why she was pursuing the principalship Hope, an alternately certified teacher in cohort one with several years' experience as a news reported stated:

So I feel as an agent of change... when education takes its leap, I want to be a part of it. I want to have my hands in it. I want to say, I want to be able to say, 'I remember when' and 'Look how far we've come.' I want to be a part of that. I think that's so important...

And I don't [go] for anything that's too easy. If it's not a challenge to meet then I won't continue, ya know, but this [the principalship] this is truly a challenge in every aspect of the word challenged. It's a challenge and I love it, I do.

This view of self as a forward thinking, reform minded individual was a foundational factor in these participants' expressions of why they sought the principalship.

In conjunction with both prior career experience and a reform-minded view of self, these participants also indicated that prior successful leadership experiences in the school was a factor in cognitively thinking about the principalship as a career choice. All participants viewed themselves as leaders in the school; four held assistant principal and principal positions while pursuing their certification with PLT (state does not require certification for the charter or private school principalship). Comments by Ethel, a participant in the first cohort with traditional training and 20 years teaching experience, represented how heavy involvement as a teacher leader influenced her decision to seek the principalship.

I was basically an assistant principal.... I did the schedules for the school – computer lab, PE, library, guidance – I came up with the schedule. With the EduSoft testing that was going on, I was the EduSoft coordinator. I was on the technology [team], I was a teacher trainer. Lincoln District has a program to where our teachers would go in to be trained and our responsibility was to go back and train the staff and that was me.

From Ethel's perspective, the logical step in her evolutions was to pursue the principalship through obtaining her certification. Even for those who already held principal positions, prior informal leadership experiences and formal roles in school leadership influenced their pursuit of the principalship.

Timing factor. While viewing themselves as leaders in the schools was a precipitating factor in pursuing the principalship, the circumstances of participants' lives also played a role in their pursuit of the principalship. Personal life changes, such as family, were factors for some. Rita, who held a master's degree in business, came to education alternatively in order to accommodate young children and then explained in the focus group interview:

My youngest child just graduated from high school... I feel like I have the time to really devote to a school because I think when you take on that leadership role at the school it is very time consuming and I needed to be in a position in my life where I felt I could give it the time that it's going to need and I think it's the perfect time for me right now.

Beyond personal circumstances there was a sense that the time was right to make a career change. Gladys, a member of cohort one who was an alternately certified teacher working in a charter school, had been teaching and working with new teachers, and although she enjoyed teaching and the work with other teachers, she felt it was time to focus on teaching or move to a formal administrative position. She stated, "So, after doing that a couple years [training new teachers] I thought I either need to focus on the outside of the classroom stuff or the classroom stuff." Hope, on the other hand, was definitely looking for something beyond the routine of the classroom. "That was six years ago. I felt stagnated and I felt.... I could see progress in my students, my test scores were going up every year which was great, but now what?"

For those who already served in official leadership positions, the time was right to formalize their leadership by obtaining certification. Matt, a former Teach for America teacher, member of the second cohort, and the principal of a charter school, had set a goal to attain certification, but had not pursued it because of past workloads. In the focus group interview, Matt stated:

We started a school two years ago. So it's very much, it's been in start-up mode, adding new grades, constantly hiring, constantly refining our practices. ... I'm at a point now that I can afford to give it [certification] that kind of attention.

Timing and opportunity related to personnel circumstances, career change, and current career circumstances all factored into participants decisions to pursue the principalship and certification.

Factor associated with the relational dimension: Influential people. As part of their anticipatory socialization, relationships played a role in these participants' pursuit of the principalship. Each aspiring principal was influenced to purse the principalship by at least one person, a practicing principal, spouse, mother, colleagues, or someone they viewed as a teacher-leader. In particular, participants' principals emerged as an influential person in both the quantity of responses and the quality of their influence. For most participants a direct interaction with the principal was either the precipitating or solidifying experience in the

pursuit of the principalship. For Amy, a member of cohort two and a teacher leader in her school, an interaction with her principal was the initiating experience. She stated:

I'll be honest, my principal and assistant principal kind of talked to me and asked me to look into going into administration. ... they were the ones that said, "Hey look, this is something in you," because I was classroom teacher but I was doing other things outside the classroom. They said, "Why don't you look into making that a broader picture for yourself?

Most of the participants had the experience of being "recruited' by their administration. For others, however, principals were influential, but not directly or positively as noted by Chrystal, a member of cohort one and a traditionally trained secondary language arts teacher with six years' experience,

... seeing my principal. He was just this laissez-faire, so lackadaisical, just too laid back. And he didn't have too many expectations for anything. I see people who are leading and they're idiots. Like, 'Gosh, if that was me' or 'If I was up there, I would use this'. I would use that moment to decide to do this [principalship].

Although a harsh statement, the principal was a definite influence in Chrystal's pursuit of the principalship. All of the participants provided a story or affirmation about how a principal had been a positive or negative role model and influenced their decision to pursue the principalship.

Beyond the principal, encouragement and expressions of support by others concerning the participant's ability to lead seemed to have an impact on their decisions to pursue administration. Deedra, a member of cohort two who already held an administrative endorsement, expressed how colleagues impacted her decision to move forward with administrative certification.

I had a ranking teacher that recognized my ability to oversee an afterschool program and the rapport I had with the parents and the relationship I had with the kids and she suggested that I should pursue it or look into it and at the time I was kind of reserved on it, but as the years progressed I said, "Well maybe I should give it a shot."

Although each participant acknowledged colleagues as influencing their pursuit of the principalship, several also indicated family and friends impacted their decisions by encouraging them to pursue the principalship.

Factor associated with the image of the role of the principal dimension: Making a bigger difference. The participants in our investigation wanted to "make a difference." They wanted to make a difference, however, in a broader context. The participants wanted to extend their influence beyond their classroom and viewed the principalship as a means to do so. In the Bagley et al. (1990) study, the factor 'making a difference' was associated with the organizational/contextual dimension. Our findings, however, would suggest 'making a bigger difference' is more appropriately associated with the image of the role of the principal. In other words, these participants saw the principalship as 'making a bigger difference' than teaching and they believed they had the requisite background to effectively master the

principalship. The nuance between connecting this factor to internal processes, organizational/contextual, and image of the role of the principalship hinges on participants' perception of the principalship as a role that has a more global effect on students and education. A passage by Gladys outlined this understanding:

I realized that by being a principal I can affect the whole student body. I can help the kids and teachers to be better and that's the only way that you'll get a successful school. Everybody has to do their part and as a principal I have the opportunity to do that. I'll miss the classroom but in the end I'm affecting more people. I'm affecting everyone in some way.

Mark, a charter school principal in cohort two, discusses this more global impact in terms of change.

The leader of the school has to drive that and as teachers none of us were able to drive the type of change and impact... an overwhelming number of students. We could create change in our own classrooms-and little bits and pieces of that are going to be picked up on by other teachers-but until you're in a position of influence like school leadership you can't necessarily require it, require the change that needs to be made to have children to have the success that we know they can have.

The participants in this study certainly valued making a difference. These aspiring principals were socialized to view the principalship as a means to extend their desire to make a difference to a larger context, placing this factor in the image of the role of the principal dimension.

Factors Influencing Choice of PLT

Three socializing factors impacted participants' choice of PLT – timing and opportunity, program features, and program philosophy. These three factors fell within two dimensions. Timing and opportunity, as with the choice to pursue the principalship, was an influential factor connected to internal processes. Program features and program philosophy were important anticipatory socialization factors associated with organizational/contextual aspects of the program.

Factor associated with internal processes dimension: Timing and Opportunity. Timing and opportunity had an impact on participants' choice of PLT, albeit a less prominent impact than in their pursuit of the principalship. Although most participants had made the decision to pursue the principal certification, it was not until they gained information about PLT that they acted upon those decisions. The interactions of life and career issues with the introduction of the program seemed to come right at the time when participants were ready to move forward as indicated by Ellen, a member of cohort two. When asked in the focus group interview why members chose to participate in PLT she replied,

Actually, several factors that just all aligned at the same time. The program-finding out about the program, having an administrator who is retiring and felt like that I could move into her position, which I wanted; with the timeliness of the program it just all...

all things just locked into place at the right time.

Hope, the former reporter in cohort one, affirms the timeliness of obtaining information about PLT from her principal, stating, "I read just bits and pieces and I became intrigued and I jumped in.... Yes, [PLT] pushed me over the edge."

The timing between thinking about the principalship and the awareness of PLT seemed to be the right mix for most of these participants to become involved with PLT. The cognitive processes these aspiring principals experienced in their decisions to choose PLT, however, are difficult to separate from the organizational features of PLT that moved them to action. Timing in choosing PLT, therefore, needs to be explored in relationship to organizational/contextual features of PLT.

Factors associated with organizational/contextual dimension. The interaction of specific PLT program features and the PLT focused message of innovation and change seemed to move these aspiring principals to choose PLT for their certification. Participants discussed program features such as recruitment, length of the program, the internship, and not having to pursue a graduate degree as important in their decisions to pursue PLT. The focus on business principles in education and innovations, such as charter schools, and the PLT curriculum also influenced participants' choice to pursue PLT. The following passages highlight these interactions.

Program feature factor. PLT placed an emphasis on recruitment both in their application to the state and in their hiring practices. With the exceptions of two interviewees, participants were not looking specifically at an alternative program for certification, let alone PLT. For all participants, however, recruitment procedures and materials created the initial interest that contributed to participation in PLT as expressed by Matt, the charter principal, "I actually just got an email about it and the more I looked into it the more interested I was. The email came through a Teach for America just, like, blast." There was no dominate forms of recruitment that lead to interest in PLT, but the variety and scope of the recruitment was clearly evident in our data, and was a contributing factor in participation in PLT.

Once initially exposed to PLT through recruitment procedures, specific program features were strong factors for PLT participant as noted by the volume of codes related to this factor (Table 3). Specifically, the compressed summer coursework, a year-long residency with promised support and a potential paid internship, continued support after program completion, and not having to obtain a master's degree were all factors in these individuals' choice of PLT.

The compressed time frame of course work in the summer was attractive to all the participants as they perceived it allowed for family and work obligations. With and explanation echoed by other participants, Sally, a 17 year traditionally trained teacher in the second cohort, explained in the focus group interview why the summer coursework was a key programmatic feature in her decision to pursue PLT as her certification program, "The summer, going to the summer, not spending hours in night school for years if you're having small children; it just works out well for my family's sake as well as mine." Participants also expressed that not having to attend courses while working fulltime during the school year was attractive. Matt expresses this perception, "I wouldn't have to be doing a nightly thing while also working in the school during the school year; I've always just wanted to focus on the kids when it's time to focus in the kids." Beyond the summer course work, participants found the 14 month compressed time frame for certification attractive. Gladys, the charter language arts

teacher, tied this program feature with the internal process of *timing and opportunity*. "So I felt like it was almost destiny for me to be in the program because I thought like 14 months and I could become a principal." Ellen, a member of cohort two, captured the participants' view that the 14 month program was easier and more doable, "...it won't be forever, it's just a short amount of time: five weeks this summer, you know, a few nights in the fall and spring, and then five weeks next summer and then it will be over."

Participants also found the support for the full time internship attractive. The possibility of a paid administrative internship for participants was attractive, although the second cohort was only guaranteed a position that encompassed administrative tasks. All, however, were guaranteed a full-time position of some sort, which participants viewed as being paid to participant in the program or the program not interfering with their full time work. Micca, an individual interviewee from the cohort two who already had principal certification, saw the potential for being paid an administrative salary while interning as a positive in comparison to other programs. "A lot of traditional internships, I knew an assistant principal who was doing an internship, they got paid a teaching salary, whereas if I go into an administrative position in PLT I'm going to get that administrative salary." More importantly than the potential administrative pay was the perception that participants would actually engage in the role of an administrator and would garner school based support from program mentors while doing so. Chrystal, who already had a master degree, was particularly enamored with getting actual administrative experience. "For PLT, it was more like the handson training. I liked the internship portion of it that I would actually get to intern at a school as the particular role that I was trying to become." All participants viewed the mentorship given by PLT staff during the internship and for the two additional years beyond certification as a unique and important PLT program feature that helped them decide to participant in the program. As an example, when asked why she chose PLT as her certification program Sally stated, "I like the internship with the support and the continued support two years after you finish the program; so I like the idea of not being thrown in the situation and 'sink or swim,' but they offer support, ongoing."

For several of the participants not having to pursue a master's degree was an enticing program feature. Traditional certification programs required participants to obtain a master's degree and other alternative certification programs required candidates to have a master's degree. Some participants who already held master's degree, and in the case of Titus a PhD in educational research, additional degrees were not seen as valuable. For those without advanced degrees, pursuing a master's degree were perceived as requiring more time and commitment than would occur with PLT, as reflected in the following statement by Ethel, a member of cohort one and longtime teacher with traditional training, "And then the kids at home. I didn't think I could pursue a master's degree at this time."

Innovation and change. Recruitment and program features of PLT, in conjunction with the timing of the program in the lives of the participant, were important in participants' decisions to apply to PLT; however, organizational and program philosophy appeared to be more important factors in choosing PLT. Particularly important was the view that the program curriculum was innovative, based on change, and focused on an entrepreneurial-business model. When asked why she chose PLT, Sally, in the focus group interview, emphatically stated, "PLT, is training leaders-or educational leaders-to think outside of the box when it comes to educating children!" Micca, a participant with principal certification and eight years teaching experience in a high needs middle school, also represented how participants viewed

the PLT philosophy and why she selected the program, "For change. For change. PLT is, it's all about change, it's about innovation." All participants, at some point in the interviews, expressed a sense that public schooling was floundering and PLT offered a curriculum that would help them develop necessary skills to lead change. Chrystal, a traditionally trained teacher in the first cohort reflected this connection in the following comment, "I felt like there was something else that needed to be done [in education]. Something needs to come along... you have [in PLT] what I'm looking for which is change and to enter the leadership realm." Titus, a member of the second cohort and who came to education after 15 years in private industry with a PhD, represented most participants as they joined their view of self as an educational reformer and PLTs curriculum focus on change, "I've always considered myself an educational reformer and when I found this program it seemed that was their major drive was to reform education." Hope, from the first cohort, further denotes this blending of self with the program philosophy,

We have to change and we have to be willing to change... I don't think I was every really traditional, EVER... so it was not hard for me to become attached to this program and the mission of PLT and CT. It was really easy for me.

Without exceptions, participants commented on how PLT's focus on changing education was important in their selection of the program.

The focus on change was operationalized for participants through the leadership model promoted by PLT. Educational entrepreneurialism was an undergirding model of leadership of PLT, which participants viewed as an innovative merging of educational and business philosophy. Gladys enthusiastically expressed PLT's philosophy and her thoughts on why she chose PLT. "[PLT] get[s] principals who have business or entrepreneurial spirit or knowledge plus the educational piece to get them into underperforming schools to help turn those schools around ..." For several of the participants, who came to education with a background in business, the model was particularly appealing, as noted by Millie, a member the second cohort, who had a master's degree in business:

Edu-preneur; it basically a marriage of business and education and I thought, "I have a really good business background." And after reading what they're looking at, they're looking at running your schools like a business, looking at the data, looking at all the things that I'm accustomed to doing in a business world that I just thought it would be a good fit.

For the participants in this study, PLT seemed to provide an innovative program that could meet their view of themselves as change agents – a factor in their choice to pursue the principalship and associated with the internal processes dimension of the Begley et al. (1990) framework.

DISCUSSION

At first glance, there appears to be little overlap among factors derived from our coding, dimensions of the Begley et al. (1990) choice-anticipatory socializing framework, and participants' decisions to pursue the principal certification and to do so through PLT. However, an interaction among the factors and dimensions influencing participants' decisions

surfaced. Timing and the influence of others were factors influencing participants to pursue the principalship. Due to personal experience and circumstance the participants felt 'ready' to move to something different. The appearance of PLT recruiting efforts at the same time participants were 'ready' to move affected their choice to pursue PLT for certification. Recruitment that highlighted specific program features, such as an abbreviated 14-month program, a residency or full time internship, and not having to pursue a master's degree also enticed participant.

Yet, it was the intersection of several dimensions of the Begley et al. (1990) framework that underscored the importance of examining the reasons for pursuing the principalship in relationship to selecting this alternative program. From an internal processing dimension, when considering the principalship, participants perceived themselves as change agents within a system that needed transformation. They viewed the principal's role as the school change agent, with the ability to affect reform in a more global fashion. As participants considered the principalship and certification these two dimensions, view of self as a reformer within the internal processes dimension and image of the role of the principal as change agent, intersected with PLT's proposed curriculum and philosophy of innovation, change, and an entrepreneurial model of leadership. Given the choice of other certification programs with the same structural features, such as extended support and not requiring a master's degree, would these aspiring principals have chosen a program grounded in traditional principal leadership philosophies instead of PLT? Perhaps, but these findings provided indications that matching participants' internal processes, their image of the principalship, and PLT's organizational philosophy focused on innovation and reform combined to be a major collective influence in the selection of this program by these aspiring principals.

This intersection of dimensions in aspiring principals' decisions to purse the principalship and choice of program outlined in our study substantially supported the conclusions of Begley et al. (1990). For Begley and colleagues internal processes, relational, and organizational/contextual features were seen as important by the participants, first in their choice to pursue the principalship and second to engage in a specific certification program. The only major variation in our findings is our classification of making a bigger difference in educational outcomes within the image of the role of the principal rather than within the organizational/contextual aspects of the program. As with Begley et al., we postulate that the interaction of factors within specific dimensions influenced individuals to the principalship and to specific programs. These findings need to be considered in the recruitment process of aspiring principals.

Though we cannot generalize our findings beyond these two cohorts in this specific alternative certification program, our findings in conjunction with Begley et al. (1990) can provide grounding for further questions. For our participants, their attraction to a specific program seemed to coincide with their internal processes, i.e., cognition and values and the features and philosophy of a particular program. We wonder, does this relationship hold true with other aspiring principals and other programs? If so, can traditional and alternative school leadership providers develop program features and curriculum that attract a specific type of aspiring principal? There has been much discussion in the school leadership literature about attracting and selecting the best and the brightest to the principalship, individuals capable of providing leadership for change and improved student outcomes (Darling-Hammond et al., 2007; Farkas, Johnson, Duffett, & Foleno, 2001; Southern Regional Education Board, 2007). If the goal is to attract change agents to the principalship, do both traditional and alternate

certification programs need to align organizational features and curricula toward change in order to attract individuals enamored with it? On the other hand, the very nature of many alternative preparation programs, which highlight alternative school structures and models of leadership, may more organically attract individuals who perceive themselves as agents of change. From a policy perspective, there is a current push to encourage both alternative school structures, such as charter schools and alternative preparation programs to support these structures (National Alliance for Public Charter Schools, 2008). Our findings indicate that PLT seemed to attract aspiring principals from more alternative educational backgrounds with an eye on change and an interest in alternative principal practices and school structures. However, as Begley et al. and our findings also indicate, recruiting and various program features, such as full-time internships, also provided impetus to choose certification programs. Our investigation only opens the door for further study in these areas of recruitment and choice of alternative principal preparation.

There were other issues related to our study that invite further investigation, one of which is the use of Van Maanen's (1977) choice-anticipatory socialization theory as a theoretical lens. Our findings indicated participants, indeed, had engaged in internal and external process that led them to acquire social knowledge as it related to the principalship and PLT as an organizational entity, albeit not as a full participant, but in an anticipatory fashion. We suggest further examinations employing early stage socialization may shed a greater light on issues of recruitment of aspiring principals.

Future studies may also fine tune Bagley and colleague's (1990) model as a means to understand early stage principal organizational socialization. As noted in this paper, we struggled with grouping factors within the four dimensions of this model. Of particular difficulty was determining if participant's desire to make a greater difference in educational outcomes fell within the internal processing dimension or the image of the principalship dimension. For Begley et al. this factor was categorized within the organizational/contextual dimension. Also, in some ways, merging factors such as timing and PLT program features to specific dimensions seemed artificial because the factors within themes were so intertwined. Even with these issues, we found Begley's framework helpful in presenting a cohesive picture of factors that influenced aspiring principal's pursuit of the principalship and PLT as a program. This framework with its specific dimensions helped us view participants' perceptions more comprehensively than a simple list of influential socializing factors. Also, the framework helped us compare previous work, which included lists of factors from survey methodology, with the information provided by participants within an interview protocol. We suggest this framework, through further use and refinement, may provide a platform to compare choice-anticipatory socialization of aspiring principals and how dimensions of socialization may affect recruitment and participation in alternative and traditional principal preparation programs.

CONCLUSIONS

Using Van Maanen's (1977) organizational socialization choice-anticipatory theoretical lens and Begley and colleagues' (1990) framework, we examined how socializing factors influenced participants' decision to pursue the principalship and choice to engage in an alternate certification program, PLT. Factors that influenced participants to pursue the principalship fell within internal processing, relational, and image of the role of the principal

dimensions of Bagley's socialization framework. Internal processing factors included participants' perceptions of themselves as reform minded change agents and feelings that the timing both personally and professional were right to pursue the principalship. Relational factors encompassed the influence of colleagues, particularly principals. Colleagues encouraged pursuit of the principalship or, as was the case with the principal, acted as a positive or negative role model. A negative principal model influenced participants to move to administration to correct perceived poor practice. This perception of being able to do administration better than predecessors coincided with a view of the participants that they could make a bigger difference in the lives of students by pursuing the principalship. They viewed the principalship as a vehicle to this end, which placed this factor, 'making a bigger difference', in the image of the role of the principal dimension of the Begley et al. framework.

The factors influencing participants to choose the alternative preparation program also included timing of an opportunity (internal processing), but more influentially were a part of the organizational/contextual dimension of the Bagley et al (1990) model, i.e., specific program features and philosophy. The influential program features were a strong recruitment process, condensed course work and program duration, a potential full-time paid internship, promised mentor support post program completion, and the awarding of an administrative certificate without having to pursue a master's degree. Participants of PLT were equally influenced by the program's philosophical emphasis on innovation and change. They were specifically influenced by the emphasis of PLT on social entrepreneurship, the model of leadership highlighted by the program.

A key finding from this study is the intersection of choice-anticipatory socializing factors related to participants' decisions to purse the principalship and their choice to pursue an alternative preparation programs. Internal processes related to seeing themselves as change agents, their image of the role of the principal as a vehicle for impacting educational outcomes, and the possibility of the organizational/contextual philosophy of PLT providing the innovative knowledge and experiences needed to create change that could positively impact educational outcomes appeared to insect. This intersection had a major impact in how these aspiring principals came to pursue this alternate principal preparation program.

Although this study examined a few participants in one alternative principal program, it raises questions about practice and policy. If aspiring principals are attracted to the principalship and preparation programs based on internal processes, supportive relationships, their image of the role of the principalship, and organizational/contextual features of the program, can this knowledge be used to structure programs to better recruit highly capable candidates? With the current policy push for school innovation and change and the educational leadership literature advocating continuous school improvement, what kinds of certification programs attract individuals capable and willing to take on these challenges? Are aspiring principals who are both enamored with and willing to engage in change more readily attracted to alternative preparation programs focused on innovation and models of leadership for alternative school structures, such as charter schools? While our study does not answer these questions, it does provide a departure point and framework for further investigation.

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Knowledge of Effective Educational Leadership Practices

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This is the second part of a study conducted by Barton and Cox (2012) investigating administrative credential candidates' pre and post self-assessment results. Candidates who successfully complete principal preparation programs should possess the requisite knowledge and skills to assume leadership positions in P-12 schools. This study was designed to assess self-reported growth in knowledge of effective school leader practices connected to the California Professional Standards for Educational Leaders (CPSELs). A total of 82 candidates participated. Results indicated significant differences in pre and post knowledge disaggregated by CPSEL, total years of professional experience, and degree of change. Included are implications and future plans to improve the assessment of candidates based on these results.

INTRODUCTION

In 2012 Barton and Cox reported on the self-assessed gains in leadership experience of preservice school leader candidates. They found that candidates' perceived significant gains in their leadership experience over the course of their administrative credential program due in large part to authentic, real-life experiences gained in fieldwork placements. Through fieldwork placements these candidates have had practical experiences, as well as opportunities to practice what they have learned in coursework. This reciprocity between experience and knowledge is a critical element in ensuring that preservice school leaders are provided with opportunities to practice and be knowledgeable of their craft. Experience builds knowledge; knowledge informs practice. Through fieldwork candidates have done more applied to authentic situations (applied experience), but do they know more? In taking advantage of this reciprocity of experience and knowledge, the purpose of this study was to evaluate the impact of preservice school leader candidates' completion of the administrative credential program inclusive of fieldwork on their level of knowledge of leadership practices based on a pre post self-assessment.

Knowing what to do and how to promote the success of all students can appear elusive to those preparing to assume school leadership roles. Principal preparation programs provide candidates with the knowledge and skills of effective school leaders, but are candidates able to apply what they learn to school leadership practice? The research literature provides many lists of the practices and characteristics of effective instructional leaders. In their meta-analysis of over 300 studies regarding school leadership as practiced by principals, Marzano, Waters, & McNulty (2005) developed a list of 21 categories of behaviors (responsibilities) of school leaders, such as knowledge of current curriculum, instructional, and assessment

NCPEA International Journal of Educational Leadership Preparation, Vol. 8, No. 1– March 2013 ISSN: 2155-9635 © 2013 National Council of Professors of Educational Administration

practices, that were found to be positively correlated to student achievement. In synthesizing the research on principals' behaviors associated with student outcomes, Cotton (2003) described 26 behaviors of principals of high achieving schools; among those were the importance of shared leadership and focusing on instruction. Among the 10 traits of principals considered to be highly effective (McEwan, 2003) was that of an educator – "a self-directed instructional leader with a strong intellect and personal depth of knowledge regarding research-based curriculum, instruction and learning who motivates and facilitates the intellectual growth and development of self, students, teachers and parents (p. xx)." The importance of knowledge mentioned in these and other lists is exemplified in national and state adoptions of skills school leaders need in order to be effective.

In 1996, the Council of Chief State School Officers adopted a national policy for school leaders known as the Interstate School Leaders Licensure Consortium (ISLLC) standards of skills effective leaders needed (Educational Leadership Policy Standards: ISLLC 2008). In response to the ISLLC standards, many states have identified their own professional standards for school leaders – standards that are intended to result in improved student achievement. In California the policy became the California Professional Standards for Educational Leadership (CPSELs, 2001). In response to the standards movement, many principal preparation programs have designed coursework to make sure that graduates have the necessary knowledge to become effective school leaders and the ability to apply that knowledge.

But coursework alone will not suffice. In the School Leadership Study commissioned by The Wallace Foundation, Davis, Darling-Hammond, LaPointe, and Meyerson (2005) reported that "a sizeable body of research suggests that most adults learn best when exposed to situations requiring the application of acquired skills, knowledge and problem-solving strategies within authentic settings" (p.10). In their study of 160 principal interns, Dunaway, Bird, Flowers, and Lyons (2010) found that higher levels of involvement on the part of the interns also resulted in higher perceived levels of knowledge; in fact interns reported that increased involvement in leadership activities resulted in more learning. Williams (2009) used a pre post design to study how principal interns acquired skills to improve student learning. He posited that "dispositions, knowledge, and performance have long been recognized as essential constructs for school effectiveness" (p.2). There are common expectations for leadership preparation programs in terms of teaching the knowledge and skills their graduates will need to become effective school leaders. Programs are accountable for providing real-world practice in authentic school settings.

With accountability has come some positive change; the traditional role of school principal as manager has been replaced by that of an instructional leader – a teacher of teachers. With that shift in roles has come the responsibility of principal preparation programs to ensure that future school leaders know and are able to execute specific competencies and skills associated with the academic success of all students.

Research Questions

This analysis sought to answer three questions:

- 1. What degree of change occurred in candidates' pre and post self-assessment of their level of knowledge on each of the CPSELs, and how similar or different were the changes from pre to post self-assessment among the six standards?
- 2. Did the degree of reported gain/loss in knowledge of leadership competencies vary among individual candidates?
- 3. How similar or different were the changes in level of knowledge from pre to post self-assessment according to the total years of professional work experience (TYE) of the candidates.

METHODOLOGY

In order to assess administrative credential candidates' baseline knowledge of and experience in school leadership activities, *The Candidate Inventory of Personal Leadership Competence* was developed and designed around the six CPSELs (2001) which state that *an instructional leader promotes the success of every student by*:

- 1. Facilitating the development, articulation, implementation, and stewardship of a vision of learning that is shared and supported by all stakeholders.
- 2. Advocating, nurturing, and sustaining a school culture and instructional program conducive to student learning and staff professional growth.
- 3. Ensuring management of the organization, operation, and resources for a safe, efficient, and effective learning environment.
- 4. Collaborating with faculty and community members, responding to diverse community interests and needs, and mobilizing community resources.
- 5. Acting with integrity, fairness and in an ethical manner.
- 6. Understanding, responding to, and influencing the political, social, economic, legal, and cultural context.

The Instrument

The Candidate Inventory of Personal Leadership Competence consists of 58 items divided into six parts, one for each CPSEL standard, and contains 9 - 11 specific leadership activities or roles for which students are to indicate their current level of experience and knowledge. Candidates are asked to rate themselves on their knowledge of leadership skills based on a scale of 1 to 4 with "1" representing little or no knowledge; "2" meaning minimal level of knowledge; "3" representing considerable knowledge with room to grow; and "4" indicating a high level of knowledge. In constructing the instrument, the list of activities was based on a variety of print and online sources related to the CPSELs. Examples from the inventory to which candidates rated their level of knowledge in promoting the success of every student follow:

- **CPSEL Standard 1 Vision of learning** (development, articulation, and stewardship of a vision of learning that is shared and supported by all stakeholders):
 - Explain how vision and mission affect learning.
 - Develop a survey to determine teacher buy-in to the vision.
- **CPSEL Standard 2 Culture, instructional program** (advocating, nurturing, and sustaining a school culture and instructional program conducive to student learning and staff professional growth):
 - Develop and deliver an in-service program on creating a motivating learning environment for students.
 - Articulate the components of a positive school culture and instructional program.
- **CPSEL Standard 3 Organizational management... effective learning environment** (ensuring management of the organization, operation, and resources for a safe, efficient, and effective learning environment):
 - Describe the components of a motivating learning environment for students.
 - *Identify ways to increase opportunities for school leadership.*
- **CPSEL Standard 4 Collaboration... diverse community needs** (collaborating with faculty and community members, responding to diverse community interests and needs, and mobilizing community resources):
 - Work with diverse family and community groups
 - Plan and deliver a presentation that involves technological application to share summative and formative data.
- **CPSEL Standard 5 Integrity, fairness ... ethics**: (acting with integrity, fairness, and in an ethical manner):
 - Participate in the negotiation of the teachers' contract on instructional issues.
 - Assist in planning a character education program for students.
- **CPSEL Standard 6 Influencing political, social, economic, legal, and cultural context** (understanding, responding to, and influencing the political, social, economic, legal, and cultural context):
 - Recognize the political, social, and cultural contexts surrounding educational research and their influence on how research is interpreted.
 - Locate library and web resources to access current and reliable research.

These examples from *The Candidate Inventory of Personal Leadership Competence* represent only 12 of the 58 items contained in that document.

Population

The population consisted of 82 preservice school leader candidates enrolled in the administrative credential program at California State University Fullerton between 2008 and 2012. Thirty-five 35 of these candidates worked in high schools and 30 in elementary schools; five were district employees or Teachers on Special Assignment (TOSA), and 12 were on

middle school campuses. Forty percent of the population had less than five total years of experience (TYE) and 25 percent had 10 or more years.

Data Analysis

Data for this study consisted of 82 matched pre and post assessments and was input into an EXCEL spreadsheet by a graduate student. The accuracy of the entries was verified by a second graduate student. Data entry and verification were carefully monitored by faculty. For descriptive analysis purposes, data were coded and then downloaded into SPSS Version 19. This report focuses on students' pre and post administrative credential program assessments relative to self-reported level of knowledge as measured across the six CPSELs. Data analyses included frequency distributions, T-tests, and matched score comparisons.

RESULTS

Research Question 1: What degree of change occurred in candidates' pre and post self-assessment of their level of knowledge on each of the CPSELs, and how similar or different were the changes from pre to post self-assessment among the six standards?

Table 1 summarizes the pre and post mean responses and computed difference (posttest M – pretest M) illustrating the average change in candidates' self-reported knowledge of activities related to each CPSEL. As shown above, the mean differences between pre and post assessments ranged from .8 to 1.1 scale points. All differences were significant based on paired sample T-tests (p=.000). The self-reported gains were relatively similar across all six CPSELs.

Table 1
A Comparison of Pre and Post Self-Assessments of EDAD Students over a Two-Year Period According to Difference in Mean Responses (Scale = 4 [high] to 1 [low] with N=82)

California Professional Standards for	# Items -	Level of Knowledge			
Educational Leaders (CPSEL)	# Items	Pre* M	Post* M	Difference**	
6. Influencing political, social, economic, legal, and cultural context	9	2.4	3.5	1.1	
5. Fairness, integrity ethics	10	2.2	3.2	1.0	
3. Organizational managementeffective learning environment	11	2.4	3.4	1.0	
1. Vision of learning	9	2.6	3.6	1.0	
4. Collaboration diverse community needs	9	2.7	3.5	0.9	
2. Culture, instructional program	10	2.6	3.4	.8	

Note: *Rounded to nearest tenth **All differences are significant (p=<.000)

Research Question 2: Did the degree of reported gain/loss in knowledge of leadership competencies vary among individual candidates?

Mean differences are useful in making group comparisons, but individual differences can be hidden by only reporting means. Of interest was whether the reported gains/losses varied or tended to be consistent among all candidates. In order to answer this question, a matched score comparison was conducted and the frequency distributions of individual candidate's mean response differences for each standard were computed. The question asked was, what was the magnitude of this change and was growth evenly or disparately distributed? Measuring growth using one full scale point did not discriminate sufficiently to answer the second research question regarding distribution. Therefore, growth was examined by .5 scale score point increments providing a range of <.5 to ≥2.0 full scale points. Table 2 displays the findings from this analysis.

Table 2
Matched Score Comparison of Pre & Post Self-Assessment of Knowledge by Scale Score
Points

California Professional Standards for Educational Leaders N=82		Differences in Pre to Post Assessment (Scale 4 – 1, High to Low)					
		.599 %	1.0–1.5 %	1.51–1.99 %	≥2.0 %	Total ≥1.0 %	
6. Influencing political, social, economic, legal, and cultural context	22	15	34	17	12	63	
5. Fairness, integrity ethics	23	17	30	20	10	60	
3. Organizational managementeffective learning environment	26	18	32	18	6	56	
4. Collaboration diverse community needs	27	27	27	17	2	46	
1. Vision of learning	26	32	28	9	5	42	
2. Culture, instructional program	34	28	24	9	5	38	

Note: Percentages may exceed 100 due to rounding

The first statistical column (<.5) reflects the percentage of students whose self-reported level of knowledge grew less than one-half (.5) of a scale score point. The fifth statistical column (≥ 2.0) lists the percentage of students whose self-reported level of knowledge was equal to or greater than two scale score points. The last column is the total percentage of students reporting growth of one or more (≥ 1.0) full scale score points.

The six standards from highest to lowest according to the percentage of fieldwork participants indicating growth of at least one scale score point (1.0) between pre and post self-assessment of knowledge are displayed in Table 2. In three areas more students reported significant growth in their level of knowledge than in the other three areas: Standard 6 – influencing political, social, economic, legal, and culture context (63%); Standard 5 –

Fairness, integrity...ethics (60%); and Standard 3 – Organizational management...effective learning environment (56%).

Only 38 percent of the candidates self-assessed their growth over one full scale score in knowledge of Standard 2 which states that an instructional leader promotes the success of every student by advocating, nurturing, and sustaining a school culture and instructional program conducive to student learning and staff professional growth. When compared to the total group mean growth displayed in Table 1, this finding is consistent.

Research Question 3: How similar or different were the changes in level of knowledge from pre to post self-assessment according to the total years of professional work experience (TYE) of the candidates?

The final question in this analysis focused on the relationship between reported gains/losses in perceived level of knowledge and TYE (total years' experience). To answer this question, average gains based on self-reported data at the time of enrollment in the principal preparation program were compared according to the following range of TYE,: 1-4 TYE; 5-9 TYE; or 10 or more TYE. Table 3 displays the average reported gains in knowledge for each standard by total years of experience reported by candidates.

Table 3
Pre and Post Self-Assessment Mean Gains on Six CPSELS by Total Years of Experience

California Professional Standards for	1-4 TYE	5-9 TYE	10+ TYE
Educational Leaders (CPSELS) N=82	n = 33 M	n = 28 M	n = 21 M
1. Vision of learning	0.98	0.82	0.97
Č	0.73	0.02	0.88
2. Culture, instructional program3. Organizational management effective	0.73	0.71	0.00
learning environment	0.94	0.99	1.10
4. Collaborationdiverse community needs	0.85	0.79	1.01
5. Fairness, integrity ethics	0.97	0.96	1.24
6. Influencing political, social, economic, legal, and cultural context	1.04	1.09	1.17

Note: Scale from High to Low, 4 - 1

As shown in the final column, the group reporting the total greatest mean gains in knowledge (1.24) were those with the most experience (≥10 years) relative to CPSEL 5 - an instructional leader promotes the success of every student by acting with integrity, fairness, and in an ethical manner. With 18 points of comparison, three TYE ranges for each of the six standards, only four comparisons differed by more than .1 of a scale point. The least amount of growth in four of the six CPSEL standards between pre and post levels of knowledge occurred among candidates with 5-9 TYE: Standard 2 - culture, instructional program; Standard 4 - collaboration...diverse community needs; Standard 1 - Vision of learning; and Standard 5 - fairness, integrity...ethics. Candidates with 1-4 TYE reported the least amount of growth in the other two CPSELs: Standard 3 - Organizational management...effective learning

environment; and Standard 6 – Influencing political, social, economic, legal, and cultural context.

CONCLUSIONS AND DISCUSSION

In comparing the degree of change among 82 participants in this study based on the pre and post self-assessments, candidates perceived significant gains in their level of knowledge during their administrative credential program. Through self-assessment, candidates reported a 25% increase in knowledge across all six CPSELs as a result of completing this program (on a four-point scale, growth of 1 point equates to 25%). This finding is similar regarding growth of experience by Barton and Cox (2012). Based on matched score comparisons and differences in mean responses, candidates seem to be saying that at the start of the program "I have little knowledge of activities related to the six CPSEL Standards" to "I have considerable knowledge with room to grow" at the completion of the program.

In both ranked comparisons, one based on mean responses and the other on differences between pre and post assessments, Standard 2 (advocating, nurturing, and sustaining a school culture and instructional program conducive to student learning and staff professional growth) was last, the only standard with a total mean difference less than one scale point (.8) and just over a third (38%) of the candidates reporting growth of at least one scale score point. One explanation for this result could be that it is the only standard to focus almost entirely on the instructional program. Most of the candidates in the administrative credential program have consistently been classroom teachers; this is certainly true for this group of participants. As such their primary focus is on student learning and understanding the instructional program at their school sites. They also participate in professional growth opportunities which can serve to promote and nurture a culture of student achievement. It can also be concluded that as teachers, candidates possess a strong knowledge base relative to instruction, and that of the six CPSELs, Standard 2 would not be expected to be one that would result in a significant amount of growth during the administrative credential program.

The same conclusion can be applied to two other standards, Standard 1 (development, articulation, and stewardship of a vision of learning that is shared and supported by all stakeholders) and Standard 4 (collaborating with faculty and community members, responding to diverse community interests and needs, and mobilizing community resources). Given the high percentage of classroom teachers who populate the administrative credential program, it would be expected that their knowledge of visions based on student learning and working with diverse students and their families would not significantly increase through fieldwork and coursework. In terms of Standard 1, schools have had to become more focused on student achievement and using data to drive decisions regarding how students learn best; in an age of accountability and the national attention on leaving none of the children behind, conscientious educators have had to become more active stewards of their role in fulfilling their vision for learning of all children in their schools.

In terms of Standard 4, there has been a growing focus on diversity in public schools particularly in southern California. Most of the candidates in the administrative credential program work in schools responsible for the education of increasingly diverse student populations. The challenge of educating diverse populations requires collaboration among teachers, administrators, and communities to best serve their needs. Many of these same

candidates are actively involved in collaboration groups and professional learning communities whose focus is working with diverse groups of students.

The two CPSELs in which administrative credential candidates showed the most growth in knowledge between pre and post self-assessment were in Standard 6 and Standard 5. Sixty-three percent of the participants reported to have grown at least 25% in their level of knowledge in Standard 6 which states that an instructional leader promotes the success of every student by understanding, responding to, and influencing the political, social, economic, legal, and cultural context. Since most of the candidates are classroom teachers, it is understandable that they would not have entered the program with the knowledge of the responsibility school leaders have to exert political, social, economic, and legal influence for the success of their students.

CPSEL Standard 5 states that an instructional leader promotes the success of every student by acting with integrity, fairness and in an ethical manner. For many administrative credential candidates this responsibility of school leaders is somewhat surprising as evidenced by 60 percent of the candidates reporting at least a 25 percent growth in their level of knowledge between the time they enter through their completion of the program. One could conclude that teachers don't give this leader responsibility much thought or that their experiences and interactions with school leaders have not provided them with examples of these behaviors. Many teachers are unaware of instances when leaders would exhibit fairness, integrity, and ethics.

Relative to this study there are several limitations: (a) Although original plans were to measure growth in candidates' knowledge through fieldwork experiences, there is an acknowledgement that this was not possible; administrative credential coursework, professional development activities, and on-site leadership opportunities presented outside the realm of fieldwork cannot be excluded as a source of knowledge; (b) The instrument used to measure administrative credential candidates' growth in experience and knowledge -*The Candidate Inventory of Personal Leadership Competence* - has not been subjected to statistical examination for validity or reliability; reported findings are dependent on the assumption that this inventory is a valid and reliable measure; and (c) Candidates' self-assessment of pre- and post-knowledge may not be accurate; it is possible that they over- or underestimated their level of knowledge upon entering the program.

Implications. The Candidate Inventory of Personal Leadership Competence was initially developed to assess candidates' knowledge and experience upon entering the administrative credential program. The results of this assessment guided the development of individual fieldwork experiences for candidates. Students with strengths in certain CPSELs would be guided into fieldwork activities in areas where they reported having less knowledge or experience. Administering the same instrument 21 months later at the end of the program afforded opportunities for program evaluation since fieldwork experiences alone do not reflect the level of knowledge gained through experience and coursework. The growth in experience and knowledge could then be measured through statistical analysis of pre and post self-assessment.

Having used this instrument for four years with entering administrative credential candidates has provided ample opportunities for purposeful evaluation. It is time to revise the instrument soliciting feedback from practicing school leaders. Soliciting their responses to questions such as what skills and competencies do preservice school leader need to learn? What experiences will strengthen their transitions from the classroom to the front or district

office? can serve to strengthen the fieldwork, courses offered, and class assignments better preparing them for future leadership positions.

Practicing school leaders will be interviewed and surveyed to determine what school-based opportunities currently exist that would benefit the development of CPSEL skills in our administrative credential candidates. The information collected through interviews will be used to revise *The Candidate Inventory of Personal Leadership Competence*, as well serve to guide candidates in developing meaningful and attainable fieldwork experiences. The revised inventory will begin to be administrated to those candidates entering the program in the fall 2013.

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Decision-Making and Problem-Solving Practices of Superintendents Confronted by District Dilemmas

The purpose of this study was to determine the decision-making and problem-solving approaches most frequently used by school superintendents in two mid-western states when confronted with district dilemmas. The research replicated a study conducted by Polka, Litchka, Caizi, Denig and Mete (2011) in five Mid-Atlantic states. The survey used in both studies was based on the work of Tarter and Hoy (1998). Results between the two regions were compared and significant differences were found in how superintendents manage dilemmas and their preferences for making decisions. In addition, significant differences were found between male and female superintendents in the mid-western states.

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THE SUPERINTENDENCY

School superintendents confront a myriad of issues on a regular basis. National organizations such as American Association of School Administrators (AASA) have found that these issues are similar across the country (AASA, 2005). They include scarce resources, school board relations, partisan politics, divergent community beliefs and values, the privileged minority, the vocal majority, and a host of others—some more problematic than others depending on the context of the school district. These dilemmas are not new. T. O. Hall published "The Dilemmas of a School Superintendent" in the *Peabody Journal of Education* in 1941. Dilemmas Hall referred to include "political influences...unprepared but popular teachers, local teachers, and over-age teachers..., problems of revenues...matters of curriculum, supervision, and many situations in the promotion of education in general" (p. 241). In 2005, the American Association of School Administrators (AASA) invited the state superintendent winners to a leadership forum to discuss the challenges they face. Monte Moses, the 2005 AASA National Superintendent of the Year, summarized the dilemmas of today's superintendents as following:

NCPEA International Journal of Educational Leadership Preparation, Vol. 8, No. 1– March 2013 ISSN: 2155-9635 © 2013 National Council of Professors of Educational Administration

- revenue and expenditure limitations;
- increasingly diverse and complex students and families;
- high public expectations and accountability for student achievement;
- rapid advances in knowledge and technology;
- business and political concerns about public education;
- international competition in education;
- more legal and law enforcement issues;
- violence, racism, and substance abuse;
- choice and vouchers;
- growing state control of education;
- increases in student enrollment;
- and erosion of public confidence and common agreement about public education. (p. 2)

Nearly sixty-four years later, the list remains very similar.

Because it is widely accepted that the public school superintendent position is inherently enmeshed in dilemmas, it creates a position similar to CEO positions in other major organizations (Houston & Eadie, 2000; Kowalski, 1995; Leithwood, 1997; Thody, 1997). According to Houston and Eadie, the superintendency is no longer limited to keeping the school district running smoothly by providing direction and oversight "The superintendents who in our experience are most effective...function as full-fledge, contemporary CEOs, seeing themselves more fully as leaders, not just chief administrators" (p. 19-20). Watkins and McCaw (2008) echoed a comparable finding when they wrote: "The dilemma for superintendents includes no shortage of critics, the ever-present need to analyze the politics and navigate the land mines, astute public relations skills, and constant preparation for and attention from the media" (p.148). These various challenges are what make the position of superintendent so fragile (Usdan, 2005). The ongoing joke at educational conferences is that there are two kinds of superintendents: those who have been terminated and those who are going to be. The "joke" becomes reality when considering a study of urban superintendents by Fuller et al. (2003) in which the researchers found that many superintendents described their positions as not only challenging but "undoable" (p. 11). This is not a new phenomenon. Research from the late 1990s described the school superintendency as a management position in which superintendents found themselves in the middle of various conflicts from multiple stakeholders (Kowalski, 1995; Leithwood, 1997; Thody, 1997).

Dilemmas

Dilemmas are generally considered as those situations in which individuals find themselves in which they have unsatisfactory choices for solving a problem. *The American Heritage Dictionary Online* (Houghton-Mifflin) defines a dilemma as "a situation that requires a choice between options that are or seem equally unfavorable or mutually exclusive." School district superintendents often find themselves caught in the middle of one type of dilemma or another (Hoy & Tarter, 2008). Ogawa, Crowson, and Goldring (1999) posit that these dilemmas

school superintendents face are inherent within the institution of school itself. Therefore, decisions cannot bring forth a solution to the dilemma (dilemma is often used synonymously for problem) as the choices are not solutions, but merely the selection of one alternative over another. However, Lowy (2008) believes that "A critical task of leadership is recognizing, acknowledging and interpreting the enterprise's core dilemmas in a timely and useful fashion" (p. 33). This situational awareness is a key responsibility for the superintendent in order to manage the dilemmas within the context of the district.

Decision-Making

The text, Administrators Solving the Problems of Practice: Decision-Making Cases, Concepts, and Consequence (Hoy & Tarter, 2008), referenced administrator decision-making tasks as "dilemmas". Leadership dilemmas are obstacles or predicaments that require decisions which will move the organization forward with as little distress to the system as possible. However, dilemmas are complex and often resolved quickly to mitigate an uncomfortable situation or provide a short-term solution that creates satisfaction for the moment (Lowy, 2008). Optimal decision-making is defined by Tarter and Hoy (1998) as "rational, deliberate, purposeful action, beginning with the development of a decision strategy and moving through implementation and appraisal of results" (p. 212).

Tarter and Hoy (1998) analyzed six decision-making models in an attempt to determine which model was most effective: classical, administrative, incremental, mixed scanning, garbage-can, and political. The classical model is described by Tarter and Hoy as being an "optimizing" model, one that is straightforward: "there is one best solution to a problem; find it, select it and implement it" (p. 212). They define the administrative model as a modified version of the "optimizing" or classical model. Simon first identified this model in the 1930s as a result of finding that managers would often make decisions that were reasonable, but not ideal; in other words, the decision satisfied the situation but hardly maximized it (Brown, 2004). This administrative model is also referred to as the "satisficing" strategy.

The third model that Tarter and Hoy (1998) examined was the *incremental* model, "a strategy of successive limited comparisons" (p. 215). As the name implies, this decision-making model was made of up a series of "baby steps"—each step monitored to note the impact of the change, thus trying to avoid negative consequences on a larger scale. Tarter and Hoy noted that the model lacked direction or was not grounded in a focused outcome or objective. If a decision was made and nothing bad happened as a result, it was a good decision; likewise, if something bad resulted, it was not catastrophic in that it had only been a small change. "To use Lindblom's (1959) phrase, they 'muddle through'" (p. 215).

The fourth model which Tarter and Hoy (1998) reviewed was the *mixed scanning* model defined by Thomas (1984) as "a mixture of shallow and deep examination of data—generalized consideration of a broad range of facts and choices followed by detailed examination of a focused subset of facts and choices" (p. 216). Tarter and Hoy also refer to this model as "experimental, reversible, limited, and typically not far from the problem" (p.217). *Mixed scanning* differs from the *incremental* model in that it is grounded in policy, but it mirrors the cautious, measured decisions of the *incremental* model.

The fifth model that Tarter and Hoy (1998) studied is referred to as the *garbage-can* model as well as "irrational decision making" (p. 217). In the *garbage-can* model, solutions

are suggested for problems that don't yet exist, but that actually demand that a problem be found. Tarter and Hoy sum up the model by stating: "The model explains why solutions are proposed to problems that don't exist, why decisions are made that don't solve problems, why problems persist despite solutions, and why so few problems are solved" (p. 218). However, other researchers do not consider the *garbage-can* a model at all, but rather a way of describing irrational decision-making (Padgett, 1980). In short, within the bureaucracy of an organization it is easy for problems to become separated from appropriate choices due to ambiguity within the system, thus providing an image of someone rummaging around inside a garbage can hoping to find a solution.

The last decision-making model analyzed by Tarter and Hoy (1998) is the *political* model which they described as the model used in "organizations in which politics replaces the legitimate procedures for decision making, personal goals displace organizational ones" (p. 219). The *political* model, then, functions to satisfy an individual's goals and relies on power as opposed to organizational policy or objectives taking precedence. This model lies at the opposite end of the continuum of decision-making models with *classical* on one end and *political* on the other.

After reviewing the six models, Tarter and Hoy (1998) used the following seven standards to compare the models: "setting objectives, means-ends analysis, the test of a good decision, the decision process, the search for alternatives, guiding principles, and perspective" (p. 220). Their analyses resulted in the models lying on a continuum from organizational objectives and outcomes to personal objectives and outcomes—from normative to descriptive. Using the results of their analyses, Tarter and Hoy concluded that there was no one best way to make a decision, but rather it was the situation that determined which strategy was most likely to yield an acceptable result—a *contingency* theory. They further deduced that "decision-making theories...are probabilistic not deterministic" (p. 227). In subsequent work, Tarter and Hoy (2010) reinforced the idea that decision-making is important—as evidenced by the plethora of publications about decision-making and how to do it, but as in their 1998 work reinforced the idea that there is no one model. The best results are obtained by the thoughtful selection of the best model to fit the situation.

Preparing Superintendents for Dilemmas

Decision-making ideas are of great importance to educational leadership departments in universities across the United States charged with working to improve administrative preparation programs. Kowalski (2009) posits that the demands of the superintendency now lie in accountability, and, with accountability, the need to make sound decisions that have both social significance (school improvement) and professional significance (evidence-based administrative practices). The principles of leadership, management, finance, and law are foundational in most superintendent preparation programs. However, school administrators may complete advanced degrees and meet state licensure requirements without ever having taken a required course in decision-making (Wirasinghe, 2008).

To better prepare educational administrators for the challenges of school leadership positions, it is critical that higher education institutions are aware of the problems that are faced by superintendents on a regular basis and the dilemmas that require advanced skills in decision-making and problem solving. If, as Ogawa, Crowson, and Goldring (1999) propose, dilemmas are just part of the system of educational organizations and have no solutions, there

is no reason to believe that school reform will even be a possibility or that higher education will be able to design a program to prepare superintendent candidates to confront dilemmas by selecting the most appropriate decision-making strategy. However, other works (Domenech, 2009; DiPaola & Stronge, 2003; Marzano, Waters, & McNulty, 2005; Glass, 2005) identified effective superintendents and then categorized the knowledge, skills, and dispositions that make them successful. The Educational Consultants and Research Associates (ECRA) (2010) identified six best practices from district leadership evaluation standards and principles derived from the research. These are 1) vision and values; 2) core knowledge competencies; 3) instructional leadership; 4) community and relationships; 5) communication and collaboration; and 6) management. These criteria are credible, but specific knowledge and skills need to be extrapolated for each to provide guidance for superintendent preparation programs. Direct instruction in specific strategies and behaviors required for thoughtful, rational decision-making is accomplished through modeling, guided practice, feedback, and application. Strategic instruction in decision-making models will better prepare candidates for the myriad of dilemma-type decision-making situations superintendents encounter today.

Issues of District Size and Superintendent Gender

There have been a number of studies of superintendent issues by location or district size: large urban districts (Fuller, Campbell, Celio, Harvey, Immerwahr, & Winger, 2003); small urban districts (Hentschke, Nayfact, & Wohlstetter, 2009), small districts (Acker-Hocevar & Touchton, 2011; Hyle, Ivory, McClellan, 2010); and rural districts. District size is defined by the National Center for Education Statics as follows: Large urban districts have a principle city of 250,000 or greater population; small urban districts have a principle city of less than 100,000 population; small districts have a population of less than 25,000; rural districts are located 5 to 25 miles from an urban cluster. Differences naturally exist in how decisions are made in small rural districts and large urban districts, although many of the dilemmas faced by district leaders may be similar in nature (Patterson, Koenigs, Mohn, & Rasmussen, 2005). These dilemmas include declining enrollment, loss of resources, and local politics. In a study of a small, rural school district, Patterson, Koenigs, Mohn, and Rasmussen found three patterns that influenced decision-making characterized as the "normal operating procedure" here: 1) top-down decision-making; 2) limited communication to influence decisions; and 3) "success-to-the-successful" (Senge, 1990). Senge defined the third pattern as the inequitable distribution of resources. In other words, decisions are made in which one group continues to get more; the other groups continues to get less.

In a study of urban superintendents (Fuller, et al., 2003), researchers found that superintendents in large urban schools had a number of issues with decision-making. These ranged from school boards that micromanaged to site-based decision-making. Many of the superintendents who participated in the study felt that the structure of the system itself effectively removed them from making decisions in the best interest of "kids"—the role they were hired to do.

There are many differences between the ways in which men and women lead, and consequently, how they make decisions and face dilemmas (Bjork, 2000; Blount, 1998; Bruner, 1999; Tallerico & Blount, 2004). Women tend to be more collaborative, communicative, and relationship-oriented. These traits obviously align to decision-making models that favor those skills. Bruner (1999) found that women build power collaboratively.

Men, on the other hand, tend to use the top-down power of the superintendent position. Again, some models of decision-making tend to align better to the management styles related to male leadership, often described as hierarchical, managerial in nature, and favoring bureaucratic systems (Lewis, 1998).

METHODS

The purpose of this study was to determine what decision-making and problem-solving approaches are currently being used by superintendents in two Midwestern states when faced with a dilemma. Both states have superintendent preparation programs that could benefit from the results of this study in redesigning their programs. The Educational Specialist degree (Ed.S.) is required in Illinois and the Certificate of Advanced Studies (C.A.S.) is required in Iowa for administrators to become superintendents. These programs require up to thirty-six semester hours of course work as well as a year-long internship component.

The current study reviewed the survey results of superintendents in the Midwestern states and then compared those results with the survey results of the superintendents in the Mid-Atlantic states (Polka, Litchka, Caizi, Denig, & Mete, 2011). The objective was to determine if the decision-making models of preference were similar in the two regions of the country, thus providing superintendent preparation programs with data to determine which approaches were more universally used.

Survey Instrument

Eight specific categories of decision-making in the text, Administrators Solving the Problems of Practice: Decision-Making Cases, Concepts, and Consequence (Hoy & Tarter, 2008), were reduced to seven by Polka, Litchka, Caizi, Denig and Mete (2011) who used them to create a thirty-five question survey to determine which of the seven decision-making categories were most frequently used by school superintendents. Their original study surveyed superintendents in the Mid-Atlantic states of Delaware, Maryland, New Jersey, New York, and Pennsylvania.

The survey used in the study was developed by Polka, Litchka, Caizi, Denig, and Mete (2011). The seven decision-making categories used in the survey are from the work of Hoy and Tartar (2008) and include: 1) classical; 2) incremental; 3) garbage can; 4) shared; 5) satisficing; 6) mixed scanning; and 7) political. The five survey statements used to describe classical contain descriptors such as rational, factual, and connections between the means and the ends. *Incremental* decision-making descriptors focused on the process, procedures, and the use of data. Administrators utilizing the garbage can category are those who "rummage around" for the choices available for solving the problems in a way that appears to lack rational thought. Shared decision-making is as the name implies, and other people are involved in the process of making the decisions. Satisficing is focused on making decisions that most people favor; that meet the needs of those affected; and that satisfy those impacted by the decision. The *mixed scanning* category is grounded in considering the school mission, vision, goals, and policies when making decisions. Descriptors in the survey statements used to define the political category include bargaining, compromise, power brokering, and administrator priorities. Permission was obtained to use the instrument to survey superintendents in the mid-western states of Iowa and Illinois. The survey contained three parts: A) demographic data, B) decision-making/problem-solving approaches, and C) personal

and professional dilemmas. Part A, the demographic data section, collected information about respondents' background, experiences, and current school demographics. These included gender, years of educational and administrative experiences, years working in the current position, number of superintendencies held, school district setting, district student population, number of administrators and schools in the district, and number of schools currently on NCLB "needs improvement" list.

Part B of the survey focuses on superintendents' problem solving and decision making approaches. It gathered information about each individual's use of each of the seven problem solving and decision making approaches identified in the earlier studies (Hoy & Tarter, 2008,): classical, incremental, garbage can, shared decision-making, satisficing, mixed scanning, and political. Five statements were developed for each of the seven approaches making a total of 35 statements in this section. Each statement related to a specific problem solving or decision making approach and participants were asked to respond on a 10-point Likert-type scale that measured frequency of use of the identified approach. The Likert-type scale ranged from almost never (1-2), rarely (3-4), occasionally (5-6), frequently (7-9), to almost always (9-10).

Part C of the survey was designed to explore personal and professional dilemmas that superintendents encounter in district leadership. This part of the survey consisted of twelve dilemma questions with each question designed to examine one of the twelve leadership dilemmas that were identified in leadership literature. The twelve dilemmas were 1) centralized vs. decentralized decision-making, 2) personal life vs. professional life, 3) truth vs. varnished truth, 4) creativity vs. discipline of thought, 5) trust vs. change, 6) leadership vs. management, 7) long-term goals vs. short-term results, 8) motivation vs. manipulation, 9) independence vs. dependence, 10) conflict vs. compliance, 11) commitment vs. compliance, and 12) problems vs. predicaments. Respondents were asked to rate their frequency of experience with each of the dilemmas using the 10-point Likert-type scale. The scale was the same as that used in Part B of the survey.

Participants

The survey was sent to superintendents in two mid-western states via email lists obtained from the State Boards of Education of both states. Survey data were collected through an online survey collection tool. The data collection was completed in three weeks. A total of 281 superintendents responded to the survey, representing approximately 24 percent of all superintendents in the two states. Among them, 79 percent were male and 21 percent were female. The majority of them (84% to 89%) had over 17 years of total educational experience and over 11 years of administrative experience, served ten years or less in their current position, and worked in districts with ten or fewer administrators. Most of them (61%) held only this current superintendency, whereas six percent identified that they had experienced three or more superintendencies.

The sample consisted mostly of rural superintendents (65%). Suburban superintendents accounted for 31 percent of the respondents, and three percent were urban superintendents. Eighty seven percent of the superintendents worked in districts with 3,000 or fewer students and 61 percent worked in smaller districts of 1,000 or fewer students. The remaining superintendents (13%) served in districts with over 3,000 students. Not surprisingly, over half of the respondents (67%) indicated that there were three or fewer

schools in their districts, while four percent reported over ten schools in their districts. In terms of school performance, about half of the sample had one school in the district on the NCLB "Needs Improvement" list and another five percent reported five or more schools in their districts currently on the NCLB "Needs Improvement" list.

Data Analysis

Among those who took the survey, about three percent of the respondents didn't complete any of the items in Part B and roughly 6.5 percent completed none of the dilemma items in Part C. These incomplete cases were excluded from the study. The remaining missing data were scattered randomly across the items accounting for less than five percent for items in Part B and less than one percent for the dilemma items. These missing data were replaced with the respective mean values of the items.

To analyze the problem solving and decision making items in Part B, responses to items relating to each of the seven approaches were aggregated first and then the average aggregated responses were used to rank order each of the approaches. In the next step responses were linked to the demographic data to examine if demographic variables influenced the frequency of use of the decision-making and problem-solving approaches. A series of independent ANOVA tests were carried out with each of the demographic variables as the independent variable and the frequency of use of the decision-making and problem-solving approach as the dependent variable.

Prior to running ANOVA, sample size within each level of a demographic variable was examined to ensure each level has adequate sample size. When a level has two few observations, it was combined with another level to form a new level for the analysis. Following ANOVA, post hoc tests were carried out with significant F results. In situations where the homogeneity of variance assumption was not met, the Games-Howell post hoc procedure was used to identify differences. When the assumption was met, Gabriel's procedure was used due to varied sample sizes between the levels (Field, 2009).

To analyze the dilemma items in Part C, descriptive statistics were obtained from responses to each of the twelve leadership dilemmas and the results were then rank ordered based on the average responses. Again, ANOVA and post hoc procedures, described above, were carried out to examine the influence of survey demographic data on frequency of experience with each of the dilemmas.

RESULTS

Problem Solving and Decision Making

Table 1 presents the aggregate mean score of the five items that measured the frequency use of each of the seven decision-making and problem-solving approaches. The mean scores were rank ordered from the highest to the lowest among the seven approaches. The three approaches most frequently used by superintendents in decision making and problem solving as identified by the study sample were *incremental*, *classical*, and *mixed-scanning* approaches. Comparatively, *political and garbage-can* approaches were reported as less frequently used. Cronbach alpha for all 35 items from this sample is .85.

Table 1
Rank Order of Decision Making Mean Scores of Part B (Polka-Denig PS/DM Survey) (n = 273)

Rank Order	Decision Making	M	SD
1	Incremental	39.87	4.98
2	Classical	39.60	4.41
3	Mixed Scanning	39.49	5.56
4	Shared Decision Making	36.52	5.23
5	Satisficing	32.59	5.98
6	Political	30.33	4.81
7	Garbage Can	29.57	5.42

To investigate whether demographic variables influenced the frequency of use of the decision-making and problem-solving approach, a series of independent ANOVA tests were carried out with each of the demographic variables as the independent variable and the frequency of use of the decision-making and problem-solving approaches as the dependent variable. Post hoc procedures were carried out when necessary. Significant ANOVA test results are presented in Table 2 and the test results are summarized below.

Table 2
ANOVA Results for Gender, District Location, District Setting, District Student Population, and Number of Schools on NCLB "Needs Improvement" List

Decision Making	Gende	r	District Locatio		District Setting		District Student Populat			
	F	p	F	р	F	p	F	p	F	р
Incremental		n.s.	4.984	.026		n.s.	4.984	.026		n.s.
Classical		n.s.		n.s.		n.s.		n.s.		n.s.
Mixed Scanning	5.098	.025		n.s.	6.391	.012		n.s.		n.s.
Shared Decision										
Making		n.s.		n.s.		n.s.		n.s.		n.s.
Satisficing	3.888	.050*		n.s.		n.s.		n.s.		n.s.
Political		n.s.		n.s.		n.s.		n.s.	5.722	.017
Garbage Can		n.s.		n.s.	4.153	.043		n.s.		n.s.

Note. n.s. = non-significant; * p value was less than .05 but was rounded to .050.

There were significant differences in the decision-making and problem-solving approaches based on gender. Female superintendents on average reported more frequent use of the *mixed-scanning* approach, $F_{(1, 255)} = 5.098$, p = .025, and the *satisficing* approach, $F_{(1, 255)} = 3.888$, p = .05, than male superintendents. Significant differences were also found with regards to district setting. Rural superintendents reported less frequent use of the *mixed-scanning* approach, $F_{(1, 270)} = 6.391$, p = .012, but more frequent use of the *garbage can* approach, $F_{(1, 270)} = 4.153$, p = .043, than non-rural superintendents.

In addition, significant relationship was found between district student population and the *incremental* approach, $F_{(2, 269)} = 4.401$, p = .013. Significant relationship was also found between district student population and the *mixed-scanning* approach, $F_{(2, 269)} = 3.182$, p = .043. Post hoc tests (Games-Howell) revealed that superintendents in district with 1,000 or fewer students reported less frequent use of either of the two approaches than those in districts with student enrollment between 1,000 and 3,000. The number of schools on NCLB "Needs Improvement" list was found relating to the use of the *political* approach, $F_{(1, 264)} = 5.722$, p = .017. Superintendents who had two or more schools on the list reported more frequent use of this approach than those with only one school on the list.

Leadership Dilemmas

The means and standard deviation for each of the twelve personal and professional dilemmas are presented in Table 3. The study sample identified the dilemma that was faced most frequently was the issue of *leadership vs. management* (M = 8.56, SD = 1.58). The second most frequently encountered dilemma reported by the sample of superintendents was *motivation vs. manipulation* (M = 7.70, SD = 2.31). The third most frequently experienced dilemma related to *creativity vs. discipline of thought* (M = 7.11, SD = 1.82). Other dilemmas that were frequently faced by superintendents were *commitment vs. compliance* (M = 6.71, SD = 1.82), *conflict vs. consensus* (M = 6.64, SD = 2.00), *independence vs. dependence* (M = 5.71, SD = 2.06), and *personal vs. professional* (M = 5.67, SD = 2.10).

Table 3 Ranking of Dilemmas by Mean Score (n = 255)

Rank	Dilemma	\overline{M}	SD
1	Leadership vs. Management	8.56	1.58
2	Motivation vs. Manipulation	7.70	2.31
3	Creativity vs. Discipline of Thought	7.11	1.81
4	Commitment vs. Compliance	6.71	1.82
5	Conflict vs. Consensus	6.64	2.00
6	Independence vs. Dependence	5.71	2.06
7	Personal vs. Professional	5.67	2.10
8	Trust vs. Change	4.98	2.40
9	Centralized vs. Decentralized	4.81	1.97
10	Problems vs. Predicaments	4.81	2.182

11	Long-term Goals vs. Short-term Results	4.73	2.126
12	Truth vs. Varnished Truth	3.19	1.97

The dilemmas that were less frequently faced by superintendents were *trust vs.* change, centralized vs. decentralized, problems vs. predicaments, long-term goals vs. short-term results, and truth vs. varnished truth, with truth vs. varnished truth being the least frequently encountered dilemma as identified by the study sample.

Further investigation was conducted to explore if any of the demographic variables were related to each of the dilemmas. A series of ANOVA tests were carried out with each of the demographic variables as the independent variable and the dilemma as the dependent variable. Results from the ANOVA tests are presented in Tables 4-6. Significant findings are summarized below.

Table 4
ANOVA Results for Gender, District Location, Years of Total Educational Experience, and Years of Administrative Experience

Dilemma	Gender		District Location		Years of Total Educational Experience		Years of Administrative Experience	
	F	p	F	p	F	р	F	р
Leadership vs. Management		n.s.		n.s.		n.s.		n.s.
Motivation vs. Manipulation		n.s.	5.218	.023		n.s.		n.s.
Creativity vs. Discipline of								
Thought		n.s.		n.s.		n.s.		n.s.
Commitment vs. Compliance		n.s.		n.s.		n.s.	3.785	.011
Conflict vs. Consensus	6.689	.010		n.s.		n.s.		n.s.
Independence vs.								
Dependence		n.s.		n.s.		n.s.		n.s.
Personal vs. Professional		n.s.		n.s.		n.s.		n.s.
Trust vs. Change		n.s.		n.s.		n.s.		n.s.
Centralized vs. Decentralized		n.s.		n.s.		n.s.		n.s.
Problems vs. Predicaments		n.s.		n.s.	2.643	.050*		n.s.
Long-term goals vs. Short-								
term results		n.s.		n.s.		n.s.		n.s.
Truth vs. Varnished Truth		n.s.		n.s.		n.s.		n.s.

Note: n.s. = non-significant; * p value was less than .05 but was rounded to .050.

There was a significant difference in the reported use of the *conflict vs. consensus* dilemma based on gender, $F_{(1, 238)} = 6.689$, p = .010. Male superintendents reported more frequent experience of this dilemma than female superintendents. Years of total educational experience was found relating to the *problem vs. predicaments* dilemma, $F_{(3, 251)} = 2.643$, p = .050. Post hoc tests (Games-Howell) revealed that superintendents with a total of 18 to 24

years of educational experience encountered this dilemma less frequently than those with 32 or more years of educational experience.

Years of administrative experience was related to the *commitment vs. compliance* dilemma, $F_{(3, 249)} = 3.785$, p = .011. Post hoc tests showed that superintendents with four to ten years of administrative experience reported encounters of this dilemma less frequently than superintendents with 18 to 24 years of administrative experiences. There was a significant difference in the frequency of encountering the *trust vs. change* dilemma based on the number of years in the current position, $F_{(2, 242)} = 4.868$, p = .008. Post hoc tests revealed that superintendents with less than three years serving in the current position experienced this dilemma of *trust vs. change* more frequently than superintendents with eleven or more years in the current position.

The number of superintendencies that the superintendents held was related to the *motivation vs. manipulation* dilemma, $F_{(1, 251)} = 5.327$, p = .022 is shown in Table 5. Those who held two or more superintendent positions, including the current one, reported encountering this dilemma more frequently than those holding only one superintendency. The number of administrators in school districts related to the use of two dilemmas – the *commitment vs. compliance* dilemma, $F_{(1, 253)} = 5.120$, p = .024, and the *independence vs. dependence* dilemma, $F_{(1, 253)} = 4.467$, p = .036. Superintendents in districts with ten or fewer administrators reported more frequent encounters with the *independence vs. dependence* dilemma but less frequent experiences with the *commitment vs. compliance* dilemma than those in districts with eleven or more administrators.

Table 5
ANOVA Results for Years in Current Position, Number of Superintendencies Held, Number of Administrators in District, and District Setting

Dilemma	Years in Current Position		Number of Supintendencies Held		Number of Administrators in District		District Setting	
	F	р	F	р	F	р	F	p
Leadership vs. Management		n.s.		n.s.		n.s.	5.62	.01
Motivation vs. Manipulation		n.s.	5.327	.022		n.s.		n.s.
Creativity vs. Discipline of Thought		n.s.		n.s.		n.s.		n.s.
Commitment vs. Compliance		n.s.		n.s.	5.120	.024		n.s.
Conflict vs. Consensus		n.s.		n.s.		n.s.		n.s.
Independence vs. Dependence		n.s.		n.s.	4.467	.036	6.14	.01 4
Personal vs. Professional		n.s.		n.s.		n.s.		n.s.

	4.86	.00			
Trust vs. Change	8	8	n.s.	n.s.	n.s.
Centralized vs. Decentralized		n.s.	n.s.	n.s.	n.s.
Problems vs. Predicaments		n.s.	n.s.	n.s.	n.s.
Long-term goals vs. Short-term results		n.s.	n.s.	n.s.	n.s.
Truth vs. Varnished Truth		n.s.	n.s.	n.s.	n.s.

Note: n.s. = non-significant.

District setting was related to two dilemmas: leadership vs. management $F_{(1, 252)} = 5.623$, p = .018, and independence vs. dependence, $F_{(1, 252)} = 6.143$, p = .014. Rural superintendents reported fewer encounters with the leadership vs. management dilemma but more frequent encounters with the independence vs. dependence dilemma than non-rural superintendents. District student population was related to the creativity vs. discipline of thought dilemma, $F_{(2, 251)} = 6.317$, p = .002, and the independence vs. dependence dilemma, $F_{(2, 251)} = 4.764$, p = .009. Post hoc tests revealed that superintendents in districts with 1,000 or fewer students reported fewer experiences with the creativity v. discipline of thought dilemma than those in districts with enrollments over 1,000 but less than 3,000 students. These superintendents reported more frequent encounters with the independence vs. dependence dilemma than those in districts with over 3,000 students.

The number of schools in districts was also found to relate to two dilemmas: *creativity* vs. *discipline of thought*, $F_{(1,250)} = 7.876$, p = .005, and *independence vs. dependence*, $F_{(1,250)} = 12.419$, p = .001 as shown in Table 6. Post hoc tests showed that superintendents who had fewer than three schools in their district reported fewer experiences with the *creativity vs. discipline of thought* dilemma but more frequent encounters of the *independence vs. dependence* dilemma than superintendents in districts with four or more schools. The number of schools on NCLB "Needs Improvement" list was found relating to the *long-term goals vs. short-term results* dilemma, $F_{(1,246)} = 8.042$, p = .005. Post hoc tests showed that superintendents in districts with one school on NCLB "Needs Improvement" list reported less frequent occurrences of this dilemma than districts with two or more schools on NCLB "Needs Improvement" list.

Table 6
ANOVA Results for District Student Population, Number of Schools in District, and Number of Schools on NCLB "Needs Improvement" List

Dilemma	District Student Population	Number of School in District	Number of Schools on NCLB "Needs Improvement" List
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	F	p	F	p	F	p
Leadership vs. Management		n.s.		n.s.		n.s.
Motivation vs. Manipulation		n.s.		n.s.		n.s.
Creativity vs. Discipline of Thought	6.317	.002	7.876	.005		n.s.
Commitment vs. Compliance		n.s.		n.s.		n.s.
Conflict vs. Consensus		n.s.		n.s.		n.s.
Independence vs. Dependence	4.764	.009	12.419	.001		n.s.
Personal vs. Professional		n.s.		n.s.		n.s.
Trust vs. Change		n.s.		n.s.		n.s.
Centralized vs. Decentralized		n.s.		n.s.		n.s.
Problems vs. Predicaments		n.s.		n.s.		n.s.
Long-term goals vs. Short-term					9.042	005
results		n.s.		n.s.	8.042	.005
Truth vs. Varnished Truth		n.s.		n.s.		n.s.

Note: n.s. = non-significant.

DISCUSSION

The participants of this study consisted of 281 superintendents from two Midwestern states with over half the sample from rural districts with student enrollment less than 1,000 students. Most of the superintendents worked in districts with ten or fewer administrators. A majority reported there were ten or fewer schools in their districts with only four percent having more than this number. Over half of the superintendents reported having at least one school in their district on the NCLB "Needs Improvement" list. Superintendents universally are faced with problems or dilemmas that challenge their leadership literally on a daily basis, and they must draw upon well-developed skills to make decisions or solve problems in a timely, appropriate, and responsible fashion. Their success as the chief administrator in the school district depends on these honed skills.

The purpose of this study was to gain knowledge into the decision-making and problem-solving approaches superintendents used in their leadership. Additionally, this study in the mid-west compared results from survey data obtained from these superintendents with those from a similar study of superintendents for the Mid-Atlantic region (Polka, Litchka, Caizi, Denig, and Mete, 2011). Results yielded some similarities and some noteworthy differences between the two regions represented in these research projects. The study found regional influences impact significantly the problem-solving strategies superintendents employ to solve their decision-making tasks or dilemmas. Regional influences may be derived from the preponderance of rural settings in the mid-west having frequent low and declining student enrollments, citizens striving to protect small community schools, and pressures pushing for school district consolidation.

Problem-solving approaches and decision-making strategies by school superintendents surveyed were those studied in previous research (Hoy & Tarter, 2008). This study found the same rank order of decision-making approaches as prior research (Polka, Litchka, Caizi, Denig, & Mete, 2011). *Incremental* and *classical* approaches were those approaches most frequently used by superintendents. However, *mixed scanning* approaches were used less often by superintendents in rural and small enrollment districts in this study. Unlike previous

research in the Mid-Atlantic states, this study found that the *garbage can* approach was used significantly more often by superintendents from smaller rural districts compared to superintendents in larger urban settings. Additionally, this study found that female superintendents in the Midwest more often used the *satisficing* approach to problem-solving more often than their male counterparts which was not found in the Mid-Atlantic states. Female superintendents in the Midwest region may feel pressure to satisfy the majority of constituents when deciding solutions to problems versus utilizing other strategies which might divide opposing groups of people impacted. Females in Mid-Atlantic regions tend to be more like their male counterparts in the problem solving solutions they use. This could be attributed to local community/cultural views toward females in leadership positions.

Participants of this sample reported that they encountered the same 12 dilemmas as documented in previous research (Polka, Litchka, Caizi, Denig, & Mete, 2011) and presented in school leadership literature for nearly a century (Hall, 1941). Additionally, the rank order of the most frequent dilemmas faced by school superintendents was the same as reported in previous research. There were significant differences between superintendents who held one superintendency compared to those with multiple superintendencies. Those in their first superintendency experienced the motivation versus manipulation less often than those with multiple superintendency experiences. This finding may be related to the need for trust building between leadership and constituents. Until trust is built, constituents may view leaders as being more manipulative. Superintendents from small rural districts encountered less often the *leadership versus management* dilemma. This may be attributed to decisions being made more frequently without a lot of involvement from those impacted by the In districts with fewer administrators, superintendents reported facing the commitment versus compliance dilemma less often, but more often the independence versus dependence dilemma. Also, superintendents in rural and smaller districts also faced this dilemma more often than superintendents in larger districts. Superintendents in larger districts may be viewed more frequently as demanding compliance rather than shaping change decisions to be viewed as a common unified commitment to change. Superintendents with fewer years of service compared to superintendents with many years of service encountered the trust versus change dilemma more often than those with more years of service. Again, this may be attributed to new superintendents being viewed as making quick-fix changes as opposed to taking the time to build trust and use shared-decision making strategies. Finally, and unlike findings from previous research, this study found that superintendents with schools on the NCLB Needs Improvement List confronted the long-term goals versus short-term results dilemma significantly more often than those superintendents with schools not on the watch list. Also, superintendents who had two or more schools on the improvement list used the *political* approach more often than superintendents with fewer than two schools on academic watch lists. These findings could be linked to school boards, community groups, and employee groups demanding short-term, quick-fix solutions to improve student achievement. Frequently, media reports of poor student achievement to the public cause a knee-jerk reaction by school boards and school leaders to respond quickly and make bold statements to improve student achievement.

Recommendations

More research is clearly needed to investigate the problem-solving and decision-making approaches used by superintendents from other regions in the United States. Also, the differences in how these approaches are used by superintendents from smaller rural and larger urban districts warrants further study. Similarly, the common dilemmas faced by all superintendents must be further investigated. Specifically, the differences in dilemmas encountered between superintendents from smaller rural districts as well by female and male superintendents must be further researched. Additionally, dilemmas confronted by superintendents with schools on academic watch lists demands further and deeper research. Finally, there is a need to directly connect the most common dilemmas encountered by superintendents with the common problem-solving approaches used when resolving the dilemmas. A qualitative study should be conducted by asking superintendents from the Midwest region about the dilemmas that cause them the most stress and compare these findings to findings from other regions. Finally, researchers should compare problem-solving approaches to specific dilemmas within the various demographic categories and regions in the United States. As a clear outcome, this research will help shape superintendent preparation programs and should be used by professors of educational leadership as they work to better prepare their students for the world that today's superintendents must face and in which they must be productive.

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Principal Internships in Indiana: A Promising or Perilous Experience?

Even after decades of use, designing and implementing worthwhile educational administrative internships remains a work in progress. What appears to be a logical conclusion that this experience would enhance the training of aspiring building leaders defies the gathering of definitive empirical evidence. The quest to validate what constitutes a successful internship experience intensified in the 1980s when research affirmed the positive relationship between effective school leadership and school performance. The research results contained in this study attempt to provide information that will lead to the improvement of internship experiences for aspiring school administrators. In order to accomplish this purpose, current building principals in Indiana were surveyed regarding their internship experiences in the areas of program structure, components of the internship, time requirements, and recommendations for improvement. This research is a replication of a 2009 study, Improving Administrative Internship Programs: Perceptions of Illinois Principals, authored by Thomas Kersten, Margaret Trybus, and Daniel White. The differences and similarities found in the comparison studies are discussed in the Summary and Conclusions.

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INTRODUCTION

The value of an internship in the training of school administrators to prepare them for the challenges of authentic school improvement has been the subject of a robust and ongoing debate. This deliberation has persisted for at least five decades since Griffiths (1959) questioned the effectiveness of university training programs. Concerns about the internship intensified during the 1980s as effective schools research identified the building principal as an important catalyst in the school improvement formula (Berman & McLaughlin, 1978; Murphy & Hallinger, 1987; Hallinger & Heck, 1998; Milstein, Bobroff, & Restine, 1991, Duke, Grogan, Tucker, & Heinecke, 2003).

As the reform movement evolved, researchers in the field published similar findings. Leathwood, Seashore, Anderson, and Wahlstrom (2004) reported that, "Leadership is second only to classroom instruction among all school-related factors that contribute to what students

NCPEA International Journal of Educational Leadership Preparation, Vol. 8, No. 1– March 2013 ISSN: 2155-9635 © 2013 National Council of Professors of Educational Administration

learn at school" (p. 2). Other studies on educational reform have highlighted the role of school principals in improving student achievement (Cowie & Crawford, 2007; Tucker, Henig, & Salamonowicz, 2005). The challenge is to better prepare the next generation of administrators to lead school improvement and find solutions to complex, real-world problems.

As school reformers searched for ways to improve principal preparation programs the use of internships in administrator training increased. Murphy (1992) reported that studies indicated 65% of administrative training programs required some form of field study. By the early 1990s the administrative internship had become a foundational component of leadership preparation programs (Wylie & Clark, 1994). Jean and Evans (1995) reported that due to the need for administrators to improve skills and abilities required to confront the challenges of school reform, university programs expanded internship experiences to facilitate the application of classroom learning. In 2002, the National Policy Board For Educational Administration published the *Standards for Advanced Programs in Educational Leadership*. Standard seven is focused exclusively on the internship. The standard proposes a six month internship experience during which principal candidates apply and refine their knowledge in real-world settings.

In the 1990s, reform efforts served as a catalyst to improve internship experiences (Foster & Ward, 1998). There is some evidence of success. Darling-Hammond, et al. (2007) found that on average, interns graduating from programs using highly effective practices and noteworthy professional growth were better prepared for the principalship. Conclusions drawn from research on leadership preparation reflected broad consensus about the importance of field-based learning (Browne-Ferrigno, 2003). According to Cunningham (2007) a key component of the reform movement was an increased emphasis on providing opportunities for students to work on real-world problems in authentic settings. candidates do the real work of improving learning results for students, they learn about and engage naturally in all aspects of school leadership, seeing them as interrelated rather than discrete actions performed out of context" (Perez, et al., 2010, p. 218). Well-planned intern experiences greatly improve the preparation of future educational leaders and lead to a "stronger pipeline of effective school administrators" (Pounders & Crow, 2005, p. 57). The Southern Regional Education Board's report, Good Principals are the Key to Successful Schools (2007), argued that field-based experiences must be a high priority and a central focus of principal preparation programs. Orr and Orphanos (2011) pointed out that leadership development had a stronger positive relationship with school improvement when an internship supplemented the preparation program.

Others questioned the value of the administrative internship. There are generally two sources of criticism. The first concern is related to the procedural elements most commonly associated with the internship experience. Valesky, Carter, and Huene-Johnson (2007) stated that internship programs often lack key elements such as purpose, structure, and rigor that are critical to the development of school leadership. Wilmore (2004) advocated for standards-based training programs with measurable expectations. Researchers have found that the majority of an intern's experiences are related to meeting attendance, completing office work, or supervising students with only limited participation in authentic leadership functions (McKerrow, 1998; Creighton, 2002; Edmondson, 2003; Fry, Bottoms, & O'Neill, 2005; Murphy, 2002.). Questions also exist regarding the quality of field sites, university support,

and access to mentors who will model beneficial traits (McKerrow, 1998; Fry, Bottoms, & O'Neill, 2005; Crocker & Harris, 2002).

The second concern centers on a lack of empirical evidence to document a correlation between participation in internships and success in school leadership. In 2011, Anast-May, Buckner, & Geer wrote, "Despite a growing increase in the number of internship programs in educational administration, there is little empirical data as to the type of experiences and activities future administrators should have during their internship" (p.3). Critics argue that increased research efforts have had negligible impact on school leader skill development in part because reform efforts have focused on the wrong thing (Hess & Kelly, 2005; Fry, O'Neill, & Bottoms, 2006). This inability to make observable progress led to increased criticism from groups outside the school administration community (Hess, 2003; Levine, 2005). Murphy and Vriesenga (2004) concluded there exists little evidence that research conducted to date has had any noticeable impact on administrative practice. Geismar, Morris, & Lieberman (2000) suggested internships placed greater emphasis on efficiency and expediency rather than demonstrated effectiveness. Levine (2005) stated that little empirical evidence exists regarding the value added to educators who complete graduate programs.

THE RESEARCH STUDY

Purpose

The purpose of this research was to compile a more extensive knowledge base about building level internships and share the results to improve internship experiences for aspiring building leaders in Indiana. Specifically, this study was designed to:

- Develop a profile of the administrative internship in Indiana;
- Document which duties were most often completed by administrative interns;
- Determine what skills or experiences are needed to improve administrator preparation;
- Replicate selected elements of a previous research study.

Context

During the 2010-2011 school year, the public schools in Indiana served 1,047,890 students in 2256 schools. Schools are located in rural, suburban, and urban settings and are classified by the Indiana Department of Education according to grade configuration. Elementary schools contain grade six or lower. There are 1427 elementary schools throughout the state. Middle or junior high schools house grades seven or eight. Statewide there are 442 schools designated as middle or junior high schools. High schools enroll grade ten or above. Within the state there are 387 high schools. There are smaller numbers of other grade configurations such as schools which span grades seven through twelve or kindergarten through eight. For the purpose of this study, responses from schools with grade configurations other than the state's designation of elementary, middle or junior high school, and high school, were placed in the category which included the majority of the grades.

Participants

Study participants were Indiana public school principals. Subjects were recruited through a direct mailing which included a cover letter and a survey form. A follow-up email was sent to all principals selected to participate in the survey.

The number of participants was determined through the use of a sample size determination table. (Bartlett, Lotrik, & Higgins, 2001). A sample size was derived for each category of school: elementary, middle/junior high, and high school. Schools in all categories were assigned a number and through the use of a Microsoft Excel random number table, the study sample was established. Six hundred ninety-four surveys were placed in the mail. One hundred seventy usable responses were received. The collective response rate was 25%. Response rates for each category were: elementary, 22%; middle/junior high, 26%; and high school, 28%.

METHODOLOGY

A three-part survey was utilized in this study. The majority of the questions were modeled after the replication study and shared with education administration faculty for feedback. The survey was reviewed and approved by the university's institutional review board.

Part I of the survey requested routine demographic information from the participant. Part II of the survey solicited responses to questions about the structure of the principal's internship experience, the components of the internship experience, and the requirements of the internship experience. Survey items in Part II required a forced choice response although respondents were permitted to list and or describe responses that did not fit within the survey categories. In Part III, principals were asked to respond to the two following open-ended questions:

- What experiences should be included in an administrative internship program to adequately prepare administrative interns for their first administrative position?
- From your personal internship or from supervising an intern, what advice would you offer training institutions to strengthen the internship experience?

With one exception, results for Parts I and II of the survey are reported as percentages. In Part II, respondents were permitted to select multiple responses. One question in Part II, asks respondents to rank their level of involvement in administrative tasks during the internship on a scale of zero to four. Mean scores were calculated for each of six administrative tasks. A higher mean score represents a greater frequency of task involvement. All noticeable data outliers are reported in the narrative under Findings.

Qualitative responses to open-ended questions were analyzed for content by the researcher and two colleagues. This process involved the simultaneous coding of raw data and the construction of categories that capture the relevant characteristics of the document's content (Merriam, 1988). The strategy required each reviewer to independently engage in data reduction and the placement of like responses in appropriate categories. This method of analysis allowed for all frequent responses to emerge from the study (Altheide, 1987). This study replicates selected elements of a prior study. Therefore, it is important to acknowledge that this study may or may not yield similar results. For the purposes of this study reliability

should be thought of in terms of results derived from the data that can be audited and verified (Guba & Lincoln, 1981).

FINDINGS

Structural Elements of the Internship Experience

Participation in an administrative internship is a common requirement among principals in Indiana at all levels. Overall, 72.1% of the principals responding to the survey reported having to complete an administrative internship experience (See Figure 1). The range was from a high of 82.0% for middle school principals to a low of 63.3% for elementary principals. The internship requirement is not a new training strategy for educational leaders. Over 50% of the principals with more than 15 years of experience reported completing an administrative internship. However, there is a notable increase among principals with less than five years of experience and those with greater than fifteen years of experience with regard to completing an administrative internship (See Figure 2). There is an overall internship participation rate increase from 52.9% of principals with greater than 15 years of experience to 92.9% for principals with less than five years in the role of a principal. This inverse relationship of greater internship participation with fewer years of experience occurs in all grade configurations. The greatest difference is at the elementary level.

Figure 1. Frequency of Internship Participation

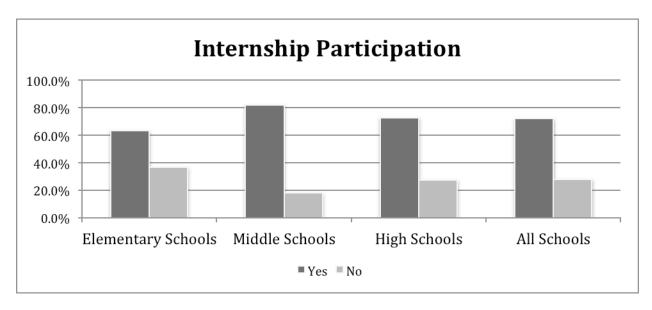
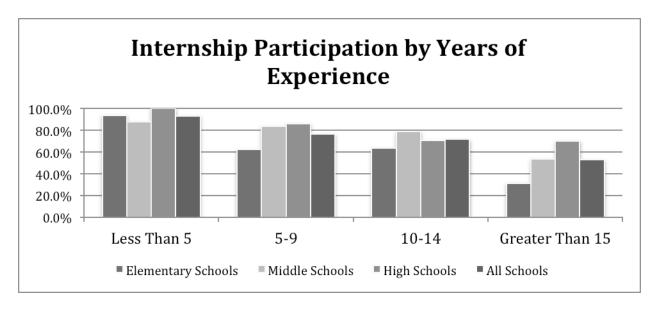
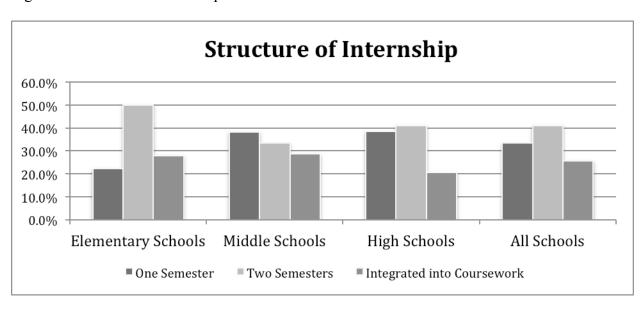


Figure 2. Internship Participation by Years of Experience



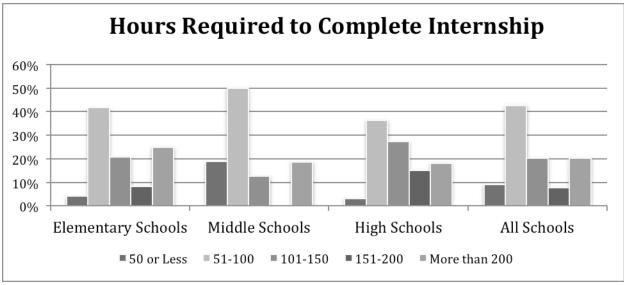
Survey respondents were asked to describe their internship experiences in terms of length and structure (See Figure 3). The most frequently reported length of the internship was two semesters. The synthesis of data from all schools depicts 48% as having participated in two semester internships and 32% as having participated in one semester internships. Twenty percent of the interns studied in programs in which field experiences were integrated into coursework. The prevalence of the two semester experience existed in all grade configurations except middle schools where 40% of the interns reported having a one semester experience. Interns were also asked whether their internships were full-time or part-time. Ninety-three percent of the respondents indicated their internships were on a part-time basis.

Figure 3. Structure of Internship



The number of hours to meet university internship requirements for an individual semester reported by the survey respondents varied greatly. Some programs required four times as many hours as others (See Figure 4). In the summary of all schools, 8.99% of the interns were able to meet course requirements by committing 50 hours or less to internship tasks. In contrast, slightly over one-fifth, 20.22%, spent more than 200 hours engaged in internship activities. The most frequently reported time allotment for all grade configurations was between 51 and 100 hours per semester. The highest percentage of respondents reporting this time commitment was middle school principals at 50%. Interns serving in elementary schools were second at 42% with high school interns reporting the lowest percentage in the category at 37%. This wide range of required hours reported suggests that some internships are, from a time commitment perspective, far more demanding than others or have a more extensive array of project requirements.

Figure 4. Hours Required to Complete Internship



In order to acquire a perspective on the level of university engagement in intern preparation, interns were asked to identify the number of times university supervisors visited them on-site (See Figure 5). This measure does not rule out the possibility of emails or telephone conversations, but the notion of university supervisors having the opportunity to learn more about the context in which interns are functioning, provide one-to-one mentoring, and demonstrate active engagement in the process, would seem to be a reasonable expectation. Overall, during the course of the internship, 18% of the interns did not meet with their university supervisors. Thirty-six percent reported meeting twice each semester which was the most common response from all participants. University supervisors met twice with 41% of the high school interns, which was more than other grade configuration although the variation among school visits was less than 7%. It is plausible that interns reporting four or more visits were those whose internships were integrated into coursework.

Frequency of University Supervisor Visits 50% 40% 30% 20% 10% 0% **Elementary Schools** Middle Schools **High Schools** All Schools ■ Did Not Meet ■ Once Twice ■ Three Times ■ Four Times ■ More Than Four

Figure 5. Frequency of University Supervisor Visits

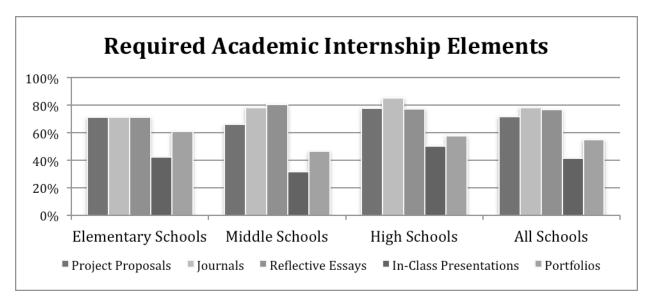
Tasks Associated With The Administrative Internship

For the purpose of collecting data that distinguished internship field activities from coursework, survey responses were divided into two categories; those directly related to coursework and those completed exclusively during the field experience. This categorical placement is not meant to suggest there is no relationship between these requirements. For example, writing a reflective essay as a culminating project activity clearly binds the two together. However, separating the tasks for the purpose of inquiry allowed for a more detailed analysis of internship activities.

Coursework activities will be described first. Participants were asked to select one or more options from a list of typical internship requirements. The items on the list represented activities associated with project planning, documenting participation, presenting results, assembling artifacts, and reflecting on administrative duties. Survey respondents were permitted to select more than one requirement; therefore, items with higher percentages were selected more frequently (See Figure 6).

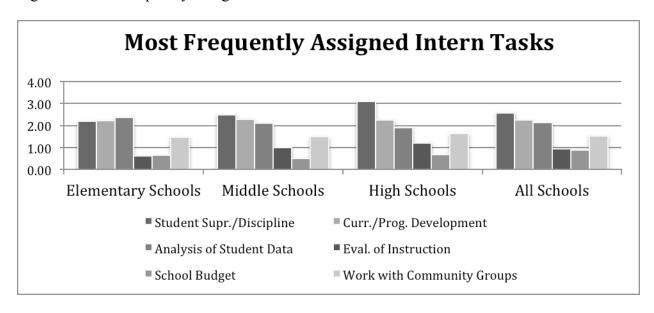
Three activities, writing project proposals, keeping activity journals, and drafting reflective essays were identified by over 70% of the respondents as required elements. From the combined results, 78% of the interns were required to maintain a journal of administrative duties, 76% were required to compose reflective essays, and 71% maintained a time log to document participation. At all levels, presentations were made in class 42% of the time. Portfolios were compiled by 54% of the interns. This pattern held for all grade configurations except in middle schools where the requirement for reflective essays exceeded journaling by nearly 2.5%.

Figure 6. Required Academic Internship Elements



In an attempt to determine what duties were assigned to interns while they engaged in on-the-job training, they were asked to rank their level of participation in six tasks commonly associated with building administration (See Figure 7). Participation was ranked from zero to four. A rating of zero indicated no involvement. A rating of four indicated frequent involvement. From the responses a mean score was calculated. A higher mean score indicates a greater frequency of task involvement. A lower score represents lesser involvement.

Figure 7. Most Frequently Assigned Intern Tasks



In the summary of schools, a scale score of 2.57 indicated that interns reported having the greatest involvement in student supervision and discipline. In what seems like a logical progression, interns at high schools had the highest student supervision and discipline scale score of 3.10 while elementary school interns were the least involved in student supervision and discipline indicated by a scale score of 2.18. Middle schools and high schools displayed similar trends when comparing the frequency of assigned duties. Interns at both levels most often participated in student supervision and discipline followed in order of decreasing involvement by curriculum and program development, analysis of student data, working with community groups, evaluation of instruction, and school budgets. The profile for elementary schools ranks analysis of student data first followed by curriculum and program development then student supervision.

Constructed Responses

All survey respondents were practicing school administrators with varying years of experience in different grade configurations. Part III of the survey asked administrators to reflect on their careers and answer the following question: What experiences should be included in an administrative internship program to adequately prepare administrative interns for their first administrative position? The purpose of the question was to compile information that could be used to tailor internship requirements that would best meet the needs of interns as they strive to become successful building leaders prepared to lead change and improve student achievement.

In response to the question asking principals to list experiences most likely to adequately prepare an administrative intern for their first administrative position, two skills were mentioned decidedly more often than others. The most frequently cited need was for interns to gain experience in curriculum development and the use of student data to guide program development. Twenty percent of the survey participants stated that interns should become proficient at writing and evaluating curriculum and should be able to use student data to evaluate effective teaching and implement programs (See Figure 8).

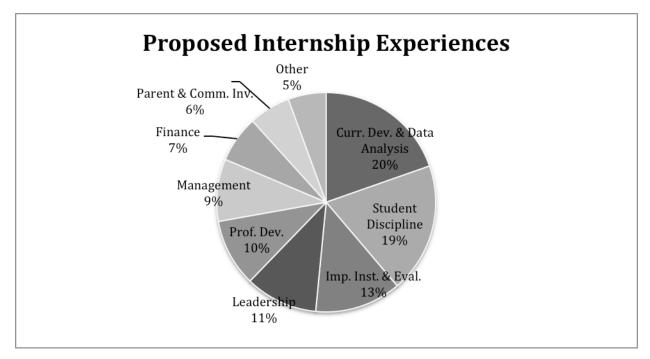
Being proficient at student discipline was the second most often cited experience at 19%. Responses served to broaden the traditional definition of disciplinarian. Skills suggested as requirements for success in this role included understanding due process and being adept at conflict resolution.

The third most frequently noted experience was improvement of instruction and teacher evaluation. Within this category the evaluation of instruction was the dominant theme. There were, however, other noteworthy skills mentioned. Having knowledge of research-based instructional practices and understanding effective lesson design were also frequently mentioned suggestions.

Leadership was designated as the fourth most often listed skill set. Recommendations were frequently task specific. Interns should learn to develop a vision for learning, nurture an effective building culture, and be capable at leading a group to consensus. It is natural to think of leadership being aligned with professional development, the fifth highest ranked skill set, but the context of the responses highlighted the need for the prospective principals to continue to grow professionally themselves rather than lead the professional development of others. Participation in professional organizations, reflecting on practice, and accessing

information from government resources were given as examples of personal professional growth.

Figure 8. Proposed Internship Experiences



Improving financial expertise focused on building level procedures. The management classification included a wide array of routine, but important skills. Completing reports, addressing safety issues, and managing time effectively were listed under this heading. The parent and community involvement category contained the typical involvement in parent-teacher organizations but focused more on the proactive nature of the experience such as the need to engage community partners and develop a positive public relations program.

The responses to the question eliciting suggestions for improving internship training programs yielded a dominate theme. Forty-six percent of the participants stated that internships should be structured to permit the intern to experience administration first-hand (See Figure 9). There were numerous suggestions to accomplish this mandate. Examples such as those that follow were often included in survey responses. "Job shadowing, it is important to see the real work." "Spend more time actively engaged versus hours preparing a portfolio." "Ensure a wide variety of activities for interns." "Interns need far more than merely handling discipline and occasionally looking at programming." "Offer a full-time experience." Overall, the term "hands-on" was by far the most frequently used term to describe how to improve the experiences of administrative interns.

There were three underlying themes in the category of Greater Mentor and University Support. They are: guidance, mentor/intern relationship, and time for reflection. Participants mentioned the advantages of forging a strong partnership between the on-site supervisors, the university supervisor and the intern. Visits to the intern's school, accessibility through email and telephone, developing projects collaboratively, and providing useful feedback were

mentioned as critical attributes of this partnership. The mentor/intern experience is a key factor for an aspiring administrator. The building mentor must not only make time for the intern, but the practicing administrator must have a desire to serve as a role model. This service is one of sharing expertise, assigning the intern to meaningful duties, and permitting, to the degree possible, access to the administrator's world. Frequently responses included suggestions to provide time for the intern to meet with the mentor to discuss progress, current issues, or to reflect on situations that had occurred. Interns require this time to build leadership capacity. This category of responses can be summed up by this quote from a survey participant, "Supervising interns is a professional responsibility and should be treated as such. Anything less is demeaning to the profession."

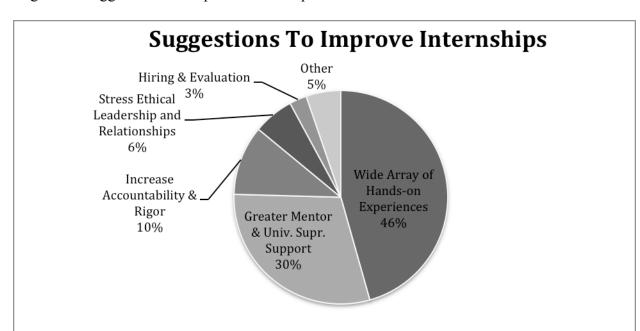


Figure 9. Suggestions To Improve Internships

The remaining four categories combined did not equal the second most mentioned category, but that does not diminish the relative importance of the responses. Under the heading of Increase Accountability and Rigor, remarks from principals focused on the need for interns to complete rigorous, meaningful, and standards-based tasks. The need to keep program entry requirements high was noted along with making certain interns were committed to becoming successful building leaders. Participants stressed the need to emphasize character development and ethical decision-making. Others noted that interns must learn to value people first and programs second. There was no prevailing theme in the category of Other. The most frequently suggested practices in this category were improving interns understanding of school law and increasing proficiency in teacher evaluation.

SUMMARY AND CONCLUSIONS

Because this research is a general replication of an earlier study, any conclusions drawn from the data must begin with a comparison of results. In Table 1, the comparative results are illustrated by listing the most frequently reported responses as a percentage of all responses. There is general agreement among the five items reported in Table 1. The only differences of note were found under the heading of the most common internship academic requirements. It is suggested that some distinctions may be due to terminology. For example, a contract and a project outline are most likely similar documents both serving as a guide and commitment for the intern to complete required tasks. If this is an accurate assumption, the only discernible difference derived from the results is the portfolio requirement. Participants in the Kersten, Trybus & White study compiled portfolios considerably more frequently than those in this The comparison of responses to the first open-ended question yielded some Kersten, Trybus, and White (2009) divided responses to this question into management and leadership experiences. Within this framework, 50% of the respondents cited teacher observation as the most important internship leadership activity followed by curriculum and instructional planning duties then assessment and data analysis. Under the heading of management, the most frequent response, over one-third, advised that interns should have more experience in financial management. The authors stated that a substantial number of responses indicated that interns should have more extensive experience in human resources. Other suggestions included student discipline and supervision, working with parents, and the development of student schedules.

Table 1. Comparative Findings Summary/Frequency of Reported Responses

FREQUENCY OF RESPONSES						
Description of Item	Kersten, Trybus, & White	Lehman				
Percentage Reporting Internship Required	73.8%	72.1%				
Structure of Internship	One Semester/39.0%	Two Semester/ 48.0%				
Required Internship Hours	51-100 hours/38.0%	51-100 hours/42.7%				
Number of Visits by University	2 visits/32.2%	2 visits/36%				
Supervisor						
Five Most Common Academic Internship	Time Log/90.6%	Journals/78.0%				
Tasks	Reflection Paper/81.1%	Reflective Essays/76.0%				
	Portfolio/72.6%	Project Outlines/71.0%				
	Contract/54.1%	Portfolio/54.0%				
	In-Class Presentation/41.0%	In-Class Presentations/42.0%				

Unlike Kersten, Trybus, and White (2009), this author's results did not reveal a clear delineation between leadership and management experiences. The experience cited as being the most critical for interns to become proficient at was curriculum development and data analysis. Student discipline was a close second. Third on the list of important skills to acquire was improvement of instruction and teacher evaluation. Becoming more adept at financial management was mentioned by only 7% of the respondents and only a nominal amount expressed a need to acquire an increased knowledge of human resource practices.

The responses to the second open-ended question in both studies are closely aligned. Principals responding to both surveys called for interns to have more hands-on experiences and to receive more support from their university supervisors. Even the distant third factor of increased accountability and rigor was expressed with the same relative frequency in both studies.

It is easy to conclude from this analysis that the author's investigation provides overall support for results found in the original study by Kersten, Trybus, and White (2009). The pervasiveness of the internship, the structure, and requirements were similar in both studies. A uniform need for interns to be immersed more deeply in curriculum development, data analysis, and teacher evaluation was expressed in both studies. A strong demand for more hands-on experiences and greater support from training institutions was also clearly evident in both surveys.

Does the agreement of the findings reported by these studies suggest they can be generalized to a broader population of interns? In the baseline study, Kersten, Trybus, and White (2010) cautioned against generalizations choosing instead to call for replication of their research. Reasons cited for their viewpoint included: a state specific survey, small response rate, and the potential for inconsistent interpretation of qualitative responses. This replication study contains the same statistical limitations, yet the findings closely approximate those of the baseline study thereby complimenting its reliability. There are arguments beyond this regional comparison that support the inference that the utilization of administrative internships as an integral training component has fallen short of their potential in the preparation of the next generation of school leaders. Three of these arguments are noted in the following paragraphs: the preponderance of consistent research findings, standards-based training, and the influence of similar contextual variables.

In general, the results of both studies combine to reinforce the criticisms expressed by researchers cited earlier including, but not limited to: Creighton, 2002; Edmondson, 2003; and Bottoms & O'Neill, 2005. More specifically, the findings of these studies are consistent with those published by McKerrow (1998) in which it was determined that over 45% of an intern's time was spent attending meetings and supervising students. McKerrow's summation is profound, "Overall, the data suggest that the internships were not experiences that exposed the students to the actual work of the administrator, at least not the important work" (p. 181).

Are there common, universal factors that should contribute to a uniform internship experience? Standards-based training is one. In an attempt to provide guidance for program design, various professional organizations collaborated in the development of a common set of standards. "The purpose of these standards is to improve principal preparation programs and to serve as a framework for current administrators' professional development (Wilmore, E.L., 2004, p. 6). The standards were adopted for use a decade ago and revised in 2011.

Today, there are 670 NCATE accredited institutions nationwide committed to compliance with the ELCC Building Level Educational Leadership Standards. This commitment requires principal training programs to provide significant field experiences and clinical internship practice in a concentrated format guided by a qualified on-site mentor (NCATE, 2012). Meeting this obligation increases the likelihood of comparable internship program parameters regardless of location.

When generalizing results a researcher must compare the likenesses and disparities of the sample to the broader population. While reviewing the findings of this study, one might discount the universality of the results by proposing that the administrators surveyed in Indiana were leading atypical schools. The hypothesis offered for consideration here is that prospective building leaders in equivalent surroundings facing similar challenges will have some common experiences.

It is understood there can be vast differences between schools. However, based on a review of data from the Digest of Educational Statistics (2011) of selected school descriptors there are few notable differences between national averages and Indiana schools represented by the random survey sample. These comparisons are illustrated in Table 2. The greatest disparities are in the categories of minority and ethnic enrollment and the services provided to students with disabilities. Schools in Indiana are not nearly as diverse as the national average but they do serve a greater percentage of students with disabilities. Overall the figures in this table suggest that interns may face similar challenges in dissimilar locations.

Table 2. Comparison of Select Public School Descriptors

SELECTED PUBLIC SCHOOL DESCRIPTORS							
			Percent	Range			
Descriptor	Indiana	U.S.	Difference	High	Low		
Pct. Students Served Under IDEA							
(2009-2010)	16.4	13.1	25.2	18.1	9.2		
Pct. Distribution of race/ethnic							
enrollment (2009)	22.2	45.9	106.7	74.5	6.5		
Pct. Students Eligible for Free/Reduced							
Lunch (2009-2010)	45.3	47.5	5.1	70.7	32.3		
Pct. Averaged Freshmen High School							
Graduates (2005)	73.5	75.0	2.0	87.6	61.2		
Pct. 8 th Grade at or Above Proficiency							
in Mathematics (2011)	78	75	4.0	84	65		
Pct. 8 th Grade at or Above Proficiency							
in Reading (2011)	77	72	6.9	86	60		
Per Pupil Expenditure (2008-2009)	9,343	10,694	14.5	17,918	7,187		

There is little doubt that additional replication studies would increase the reliability of these reports. It could also be important to expand the original study to assess the forces that influence a selected subset of internship experiences. Regardless, from what is now known, there appears to be little evidence that the use of building level internships has led to improved leadership experiences.

The fact that congruence exists among these studies only serves to amplify the real problem. This survey asked respondents what tasks they most often completed during their internship. Student discipline and supervision topped the list, curriculum and program development and analysis of student data were a close second and third. Practice in the evaluation of instruction was a disappointing fourth (See Figure 7).

The second, and most unsettling, conclusion from these findings is that there is evidence from both studies that interns are not being sufficiently exposed to tasks that research has identified as being required for effective school leadership. This must change. Over a decade ago, Bottoms and O'Neill (2001) outlined what the new breed of school leaders should be prepared to do. Comparable lists of required leadership proficiencies can be found in numerous publications (Marzano, Waters, & McNulty, 2005; Southern Regional Education Board, 2007; Whitaker, 2012). Compounding this issue is the fact that when asked to list

experiences most likely to adequately prepare an administrative intern for the first administrative position, respondents to the survey routinely listed skills not aligned with that research has found to be needed for effective school leadership and improvement (See Figure 8).

"Graduates of principal preparation programs consistently report that their most significant learning occurred during the internship experience" (Fry, Bottoms, & O'Neill, 2005. p.1). If this statement is accepted as fact, school leader preparation programs must do everything within their power to make certain that interns are learning the skills needed to make measurable differences in schools. "To prepare candidates for the principalship, opportunities are needed to replicate the true conditions under which the principal must work" (Lovely, 2004, p. 4). The goal is to bridge the gap between theory and practice (Greenlee, Bruner, & Hill, 2009). The following statement from Cunningham and Sherman (2008) rings true:

In the past, internships have been centered on tasks such as scheduling; budgeting; student discipline; faculty meetings; home-school communications; laws, policies, and procedures; developing reports; school plant concerns; testing; facilitating school-community relations; arranging substitutes; and monitoring extracurricular activities. Though all are crucial for a principal intern, they support instruction only indirectly. In an age of accountability, these tasks are no longer enough. An emphasis must be placed on tasks that facilitate instructional leadership, school improvement, and student achievement-historically overlooked or nonexistent aspects of the internship. (p. 310)

Quality internship experiences can make a difference (Orr & Orphanos, 2011). The designers of internship training programs must lead this change. Requirements must reflect reality and the need for empirical evidence of success. Standards must not only be followed, but those which contribute most to student success must be emphasized during the internship experience. Designers of internship experiences have no choice but to strive to develop leaders who understand what school and classroom practices contribute to student achievement, know how to work with teachers to foster continuous school improvement, and how to provide support for teachers to achieve these goals (Bottoms & O'Neil, 2001).

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Lessons Learned in Preparing Principals to Become Instructional Leaders

Instructional Leadership faculty at the University of South Alabama redesigned their program's curricula between 2004 and 2006 to include new standards for instructional leaders. Seven of eleven public school superintendents in the University's service area signed a Memorandum of Agreement with the College of Education to plan, implement, and evaluate the program. The redesigned program's capstone experience is a full-semester in local schools to give residents opportunities to observe and lead teachers in improving student achievement. Data obtained from surveys and the Leadership Practices Inventory© reflect residents' and mentor principals' satisfaction with the program. Forty nine residents in eight cohorts indicated on their end-of-program survey that they wanted more time and interaction with mentor principals. Principals responded to a similar survey statement that they gave residents adequate guidance and ample feedback about job performance. These divergent perceptions will be a focal point for improving the program in the future.

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INTRODUCTION

Recent research on school leadership (Drake & Roe, 2003; Hoy & Hoy, 2009; Rooney, 2000) asserts that principals are the focus of tremendous expectations in schools. Countless accrediting agencies, consortiums, and educational boards have concluded that *effective* principals are oriented less toward managing *things* and more interested in leading learning communities to facilitate change. Gray and Lewis (2011, p.3), however, noted that "organizational practices to recruit and hire principals in the past have been fraught with irony. Job advertisements rarely emphasized the managerial side of school leadership. Instead, they often used vague and effusive phrases, such as 'a catalyst for program improvement, an outstanding instructional leader and team builder' to attract applicants."

The search for instructional leaders gained intensity with congressional passage of the No Child Left Behind Act in 2001. Its requirement for Adequate Yearly Progress (Adequate Yearly Progress) by all children meant that principals who had been trained as managers would need instructional leadership skills to improve student achievement.

Making the transition from *building manager* to *instructional leader* was challenging. Usher (2001) reported that after a decade of collective effort, more than 91,000 K-12 schools, or approximately 38% of the public schools in the United States, failed to reach their AYP benchmarks by 2010" (p. 9). Threatened sanctions, including federal take-over of schools missing AYP targets for three consecutive years, put more pressure on schools to succeed with curriculums that have become outcome-based.

NCPEA International Journal of Educational Leadership Preparation, Vol. 8, No. 1– March 2013 ISSN: 2155-9635 © 2013 National Council of Professors of Educational Administration

Preparing Instructional Leaders in Alabama

The number of schools in Alabama that failed to make AYP increased between 2001 and 2003. In 2004, the governor, engaged in a broad initiative to recruit business and industry to the state, recognized that public schools were not producing high school graduates with adequate skills to support his plan for economic growth. He charged the State Board of Education (SBE) with revamping principal training programs to prepare *instructional leaders*, not *building managers*.

The SBE worked closely with the State Department of Education (SDE) to replace outdated standards in educational administration programs with more relevant *knowledge to* and *ability to* requirements. Typically, educational administration students graduated with the appropriate credential after completing campus-based courses. They demonstrated a working knowledge of organizational theory, school law and finance, but lacked understanding of instructional leadership's meaning in operational terms.

Collaborating with Local School Districts

A Memorandum of Agreement (MOA) that identified college and school district responsibilities for planning, implementing, and evaluating the new program was signed by seven of eleven district superintendents and the college's dean. A key element in the document was the provision for a semester-long residency as a capstone experience for leadership students under the supervision of a highly-effective principal. A majority of the superintendents agreed to pay a substitute teacher for residents during their internship.

Joint selection of program applicants by local school district representatives and college faculty brought the organizations together. Since the inception of revised selection procedures in 2006, 82% of the applicants have been admitted to the University's instructional leadership program. The remaining 28% either fared poorly during their interview or did not have adequate professional experience to understand the principal's role in instructional leadership.

Evaluating the Program's Effectiveness

The MOA included a provision for evaluating the new program and each student's performance during a residency. Locally-developed surveys were distributed to mentor principals during the semester in which they supervised residents. These assessments were augmented by regular visits from college program faculty.

The Leadership Practices Inventory

The Leadership Practices Inventory© (LPI) was administered twice during the residency for each leadership student. The instrument is an on-line survey designed to provide feedback from a self-assessment, mentor ratings, and a performance evaluation from as many as six observers. Jim Kouzes and Barry Posner created the LPI in 2003 to "dispel two popular myths about leadership: First, that leadership is an innate quality people are born with, and second, that only a select few can lead successfully" (p. 3).

Data Results for LPI

Paired-samples t-tests were conducted to evaluate the impact of the program on students' scores on the LPI. There was a statistically significant increase in LPI scores from pretest to posttest on all five leadership practices. See Table 1. Differences are reported with a 95% confidence interval. Cohen's D reflects the differences in the effect size between mean scores for each resident's results.

Table 1 Leadership Practices Inventory Results for Selected Residents in USA's Redesigned Instructional Leadership Program

Leadership Practice	Pretest	Posttest	t (57)	P	Cohen's D
	Mean	Mean	(57)		
Model the Way	47.20	50.65	3.29	.003	.79
Inspire the Vision	42.17	47.83	3.14	.005	.88
Challenge the	43.17	47.35	2.55	.018	.66
Process					
Enable Others to	49.22	51.74	2.26	.033	.68
Act					
Encourage the	46.39	49.87	2.49	.021	.67
Heart					
LPI Summative	45.63	49.49	2.95	.007	.81

This program was evaluated using a multifaceted approach. Feedback from the principals self-reports from program participants, and as reported, the scores on the LPI before and after the participation in the program all contributed determining the impact of the program. Significant results on the LPI directly correspond to the increase in leadership competencies during the intervention period.

Lessons Learned in the First Five Years

Gray and Lewis (2011) reported that LPI assessments were based on the skills associated with the Five Practices of Exemplary Leadership©, including "Model the Way, Inspire a Shared Vision, Challenge the Process, Enable Others to Act, and Encourage the Heart" (p. 3-4). Residents' six-week rotations between elementary, middle, and high schools negated the LPI's reliability with regard to mentor and observer feedback, but the self-assessment was reliable, valid, and statistically significant in each of the Five Exemplary Practices where $p \le$.05. The mean increase in composite scores for each cohort of students in each of the Five Practices was greater than 30 percent, which led program faculty to conclude that residents were moving through the *survival* stage of becoming leaders and gaining confidence in their decision-making and interpersonal relationship skills.

Mentor principals also were asked to complete a survey on internship's efficacy. Seventy two mentors rated the capstone experience at 3.83 on a four-point scale. Program faculty, however, noted a discrepancy between the residents' and principals' summative scores regarding mentor feedback. Residents rated their formative interactions with mentors lowest (3.30) among their survey items while principals ranked this item as highest at 3.96. The difference may be attributed to the rapid work pace of school principals and the lack of adequate time for impromptu meetings.

Mentor principal feedback is the most important element in the redesigned leadership program. Other design elements, including joint interviews, MOAs, and multiple assessments are necessary, but less important than on-site formative dialogues between an aspiring administrator and an effective principal. Asking residents to engage in leadership tasks without frequent and substantive critiques is a disservice. They need more than a visceral understanding about *why* decisions in schools were made.

The redesigned program has been in place for five years. Tomorrow's instructional leaders are receiving better opportunities to develop their leadership skills than they did prior to 2007. Continued emphasis on selecting applicants with leadership potential and increasing the amount of time they spend with mentor principals will empower them to develop the skills they need to improve teacher and student performance.

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Fostering a School Technology Vision in School Leaders

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This study focused on understanding how and to what extent school leaders shift their vision of school technology leadership as a result of being exposed to theoretical, practical, and empirical data focused on school technology leadership. Prior to the intervention, educational leadership doctoral students were asked to write their vision statement for school technology leadership. After completing a three-credit hour graduate level course developed around the National Educational Technology Standards for Administrators (NETS-A) (ISTE, 2011), the students were asked to revise their vision statement. Pre- and post-treatment analyses were conducted to determine the depth of conceptual shifts as measured by the technology leadership standards. The researchers found that each student experienced shifts in their vision that more closely aligned to the NETS-A.

In 2001, a consortium of educational leaders and technologists from across the globe gathered to articulate a set of technology standards that would address the needs of school leaders (Brooks-Young, 2009). Since that time, the National Educational Technology Standards for Administrators (NETS-A) have been adopted by many states and educational leadership preparation programs as foundational guidelines for modern school leadership (International Society for Technology in Education, 2011). The widespread adoption of the NETS-A is largely a reaction to a paradigmatic shift where school leaders have come to understand that modern technologies are creating new challenges and unique opportunities for educational systems (Bonk, 2009; Christensen, 2008; Farmer, 2010; Means, 1995; Morrison, 2010). The school leader, being responsible for leading, navigating, and changing schools within this modern, digital context, must thus embrace and prepare for this new learning environment. Central to this responsibility is having a vision of technology integration for the school. With that said, there has been little scholarly examination of this important role of school leaders until recently (Dexter, 2011; McLeod & Richardson, 2011; Rutkowski, 2011; Schrum, 2011).

The purpose of this study was to further the scholarly base on school technology leadership by examining vision. The core assumption of this research was that school leaders must lead schools with a clear vision of how technology will and can be used to enhance the educational learning experiences of all students and teachers. The researchers sought to examine how fostering skills described by the NETS-A influence a school leader's vision of how technology should and will be used in the school.

NCPEA International Journal of Educational Leadership Preparation, Vol. 8, No. 1– March 2013 ISSN: 2155-9635 © 2013 National Council of Professors of Educational Administration

REVIEW OF THE LITERATURE

Digital technology continues to put pressure on the education system to change, to adapt, to improve, to streamline, to become more effective, and to become more efficient. At the core of this shift is the school leader. If the school leader does not understand the trends in educational technology then the leader is ill prepared to harness the power of modern digital technologies. The following section provides a description of recent trends in educational technology followed by a discussion of how the field of school technology leadership has been researched. The importance of leading a school with a vision that takes into account these technological changes is then discussed.

Trends in Educational Technology

Because of shifts in information technology, the challenges facing today's schools are immense (Christensen, 2008). Technologies are causing disruptive changes that require a rethinking of nearly all elements of the education system (McLeod, Richardson, & Bathon, 2011). The Internet's popularity at the beginning of the 1990s introduced numerous tools to educators and learners alike. For instance, in the early 1990s, videoconferencing became available and today's students can now interact with others from around the world for free to do things such as discuss cultural differences and similarities (Bonk, 2009; Picciano, 2011) or engage in collaborative problem solving activities.

Videoconferencing and other digital technologies have led to the development of online course platforms. The International Association of K-12 Online Learning (2012) reported that 1,816,400 students were enrolled in distance education courses (predominantly online) in 2009-2010. This number does not include fully online schools that, as of 2010-2011, enrolled an additional 250,000 students. The omnipresent nature of technology and its impact on the education system as a whole can no longer be ignored. These technologies are disrupting the educational experience of students, teachers, and leaders.

Increasingly, modern digital technologies have been adapted to the educational setting. For example, the creation of the wiki has given way to Wikipedia and other open-source collaborative projects (Bonk, 2009; Picciano, 2011). Richardson (2010) discussed how using RSS feeds, social bookmarking, and social networking tools can facilitate the collaboration and organization of large amounts of information. TeacherTube (a spin-off of YouTube) was started in 2007 and offers a large collection of resource videos for use by teachers and students (Bonk, 2009). Whereas textbooks have been one of the more important resources of education for nearly a century, e-books are now becoming more popular (Bonk, 2009). Students can download textbooks, articles, and other resources onto an e-book at less expense for the school and the individual, thus helping school systems 'go green' while remaining relevant and providing the most updated information possible. Teachers are using blogs to engage in conversations, share information, and distribute electronic resources. The Khan Academy has disrupted educational content by providing a platform where academic lessons are offered free of charge to anyone who wants online academic content. These examples allude to the fact that technology is rapidly changing how and where teaching and learning occurs (Richardson, 2010).

Over the last decade, schools in the United States have been successful at providing a minimal level of technology hardware. However, the rise of networked computer systems,

database management systems, automated assessment systems, graphing calculators, presentation software, and handheld computers has significantly changed the way teachers teach and students learn (Morrison, 2010; Picciano, 2011). Students are uploading video projects to YouTube (Picciano, 2011), learning on personal laptops through 1:1 initiatives (Morrison, 2010), and connecting didactic content with instructional gaming software (Picciano, 2011). Teachers are using interactive whiteboards (Morrison, 2010) to teach, administrators are using computer software and data systems to make data-driven decisions (Picciano, 2011), and school systems are transforming libraries into media centers so students can have access to a wider range of resources available outside of traditional print media (Means, 1995).

Simply having the hardware and software in place does not mean that teachers are using these tools in a pedagogically sound manner or that students are learning from the tools in value enhanced ways. One study of high schools near Silicon Valley, California showed that although schools may have some of the best technology infrastructure in the country, teachers did not use the available technology in meaningful ways. Results of the study indicated that teachers were occasional or non-users of the technology at their disposal (Cuban, Kirkpatrick, & Peck, 2001). This is despite the fact that as early studies indicated computer-based instruction can raise students' scores by approximately .32 standard deviations (from 50th percentile to the 63rd percentile)(Kulik, Bangert, and Williams, 1983).

In response to the increase in technology in schools, Bass, Avolio, Jung, and Berson (2003) suggested that organizations need to be flexible and must be led by adaptable, innovative administrators. School leaders must be able to work efficiently within a constantly changing technological environment. Bass et al. (2003) noted how constantly shifting environments bring about challenges for both school leaders and the teachers. One major challenge is the expense of creating 21st Century digital classrooms in ways that enhance student learning and are not simply an add-on. Wells (2010) noted that many schools are operating in the mode of a 1950s classroom (e.g., chalk and talk; rote memorization; using technology only as a tool for remediation), leaving students unprepared for successful, productive, future-ready careers while at the same time dwindling valuable scarce resources.

School Technology Leadership

Technology in schools is becoming increasingly vital, as students entering the job market need more training and experience with digital technologies. However, without schools providing these learning opportunities, students find themselves wholly underprepared for the demands of the modern workforce. Teachers obtain the skills needed to prepare these students primarily through professional development opportunities that often directly align with the vision set by the school leader. However, students and teachers are often not led by technology-savvy leaders (McLeod & Richardson, 2011).

Numerous studies support the need for technology leadership in K-12 schools (Anderson & Dexter, 2005; Davies, 2010; Flanagan & Jacobsen, 2003; Gosmire & Grady, 2007; Leonard & Leonard, 2006). School technology leadership must be actively impressed upon pre-service school leaders in order for effective implementation and change to occur. "Without basic technology competency, it stands to reason that most school leaders lack the ability to understand the various policy and planning issues related to the successful implementation of technology" (Rivard, 2010, p. 10). Furthermore, administrators need more

opportunities to obtain knowledge regarding these challenges and how they can be effective digital change agents (Holland & Moore-Steward, 2000). The knowledge and understanding of school technology leadership can either be infused in a preparatory program or a current administrator can obtain the needed information and skills while on the job through professional development.

McLeod, Bathon, and Richardson (2011) discussed school technology leadership and noted the field of educational leadership must do a better job of preparing future leaders. These authors described how school technology leadership traditionally has been researched in three domains. The first domain includes researching how digital technologies are used to teach traditional educational leadership content. The second domain is focused on training school administrators how to better use digital technologies. The third domain focuses on how to prepare school administrators to be better technology leaders. McLeod, Bathon, and Richardson suggested that, "sadly, little research or preparation yet exists regarding the third domain, which is the most important and impactful of the three" (p. 296).

The scholarship on school technology leadership is of utmost importance as the current generation of students will encounter tremendous difficulty navigating and performing in the workforce. Educational reform in the 21st Century needs to come from administrators with an instructional vision for such things as digital literacy and digital citizenship (Rivard, 2010). Thus, it is vital that administrators are able to properly integrate technology into their school vision (Dexter, 2011; Picciano, 1998).

Principals must ensure that technology is a tool to enhance learning, teaching, and leadership or they risk squandering valuable student and teacher time along with limited school and district resources. Lemke (1998) noted how "technology can be an effective catalyst for education reform, as it requires educators to rethink current practices and inspires them to make fundamental improvements in the system" (p. 15). With regards to the NETS-A, Afshari, Bakar, Luan, Samah, and Fooi (2008) detailed how school administrators must: (1) inspire others and create shared visions; (2) demonstrate effective uses of technology in the areas of learning and teaching; (3) incorporate technology as they support, manage, and operate the school; and (4) actively involve themselves in the assessment and evaluation of technology in the school. These four areas, however, require that the school leader create and foster a shared vision for technology in their school.

Limited research has been done on how school administrators learn about or even navigate effective school technology leadership. Outlets for most research studies about technology leadership are limited to conference proceedings, unpublished literature, and dissertations (McLeod & Richardson, 2011). As early as 1998, authors noted this dearth in the leadership literature (Michael, 1998). Recently, some peer-reviewed literature in leadership journals has begun to emerge. For instance, in the spring of 2011, the *Journal of School Leadership* published a special issue on the topic of school technology leadership. In this issue, a lack of focus on school technology leadership was thoroughly researched and noted by McLeod and Richardson (2011). Other research in this special issue included an analysis of distributed leadership in a middle school laptop program (Dexter, 2011), an investigation of technology leadership preparation in administrator programs (Schrum, 2011), and a predictive study of technology support on technology integration (Rutkowski, 2011).

Schrum and Levin (2009) discussed how the current generation of learners has high expectations of its leaders. If school leaders are unable to grasp and implement the processes necessary to lead with a digital-age vision, then professional development sessions and

mentoring will continue to hamper the progress in the 21st Century school. Leaders need to be trained appropriately on how to handle the tools that are used outside of the classroom and integrate such technology into the learning culture.

Garland (2009) noted how the school principal is responsible for ensuring that the "school is an equal opportunity technology environment for every learner" (p. 46). To help administrators define and understand what technology leadership looks like, ISTE (2002) developed the first set of National Educational Technology Standards for Administrators (NETS-A). Since their original inception, these standards have been revised, but both versions highlight the need for visionary leadership in schools. Larson, Miller, and Ribble (2010) suggested that educational administrators use the five NETS-A standards to implement and integrate a technology vision for their unique schools. Creighton (2003) warned that without a clear vision, these standards might divert attention back toward hardware and software and orient planners towards goals and objectives that do not align with their individual educational setting. Therefore, setting a clear vision is central to achieve broader, student-focused educational standards.

Technology adoption begins with a vision about organizational learning, objectives and standards, and how these can support goals, policies, and procedures of the organization. A vision must be clear, concise, measurable, and describe a future that is better than the present (Keengwe, 2003). Successful school principals should inspire a shared vision for the comprehensive integration of technology while fostering an environment and culture conducive to the realization of that vision. The current study focuses on measuring how school leaders in training create and modify a school technology leadership vision that better aligns with the NETS-A.

Leading Schools with a Vision of Technology Use

Due to the constant evolution of technology, schools need leaders who have a vision for leading and learning with technology. However, most school-based vision research has focused on structural conditions around certain technology implementation, leaving a research gap around the overall issue of technology visioning (Vanderlinde, 2012). Without a technology vision that is communicated to all stakeholders, school leaders often fail to fully understand and support the role of technology in the school. Many authors suggest that the building principal fills this central organizational and leadership need (Davies, 2010; Larson, 2010).

Davies (2010) noted that administrators often attempt to fill the technology leadership gap by hiring an information and communications technology (ICT) coordinator rather than addressing the need themselves. Even in this situation, these administrators must learn to expand their personal technology skills and dispositions in order to understand trends and developments in technology and learning. In doing so, they can better support technology initiatives and better assess the potential value of such initiatives. The literature details that administrators are key to technology implementation due to their status and engagement with faculty and the community (Whitehead, et al 2003). Whitehead, et al. (2003) suggested that principals must be personally vested in technology as a communication mechanism given their interactions with public stakeholders including parents, politicians, and the community. Given the power of their position and level of community involvement, principals are pivotal when setting the school vision as it relates to how technology is used for teaching and

learning.

Creighton (2003) explained how school technology leadership is vital when it comes to changing existing paradigms. This shift "requires the principal as technology leader to become involved in discovering, evaluating, installing, and operating new technologies of all kinds, while keeping in mind teaching and student learning as the guide and driving force behind it all" (p. 3). Thus, shifting principals' paradigms so they can effectively lead future-ready schools should be a central focus for school leadership preparation programs. A vision statement is not just a document referred to when making decisions about technology integration; it is a vital part of the e-capacity of the school. This e-capacity refers to the school's ability to "create and optimize sustainable school level and teacher level conditions that can bring about effective ICT change" (Vanderlinde, 2010, p. 543). Lai and Pratt (2004) mentioned that a technology leader who desires to be an agent of change has a responsibility to develop a vision and foster a school culture that is directly linked to the adoption and use of modern digital tools.

Bennett and Everhart (2003) noted that the first step in technology planning is setting the vision. "Vision statements are compelling stories that describe how students will be using the technology and how teachers and other staff will be using it for data-driven decision making, increased productivity and planning" (p. 22). The school technology vision includes specific details on how the learning environment will support the use of technology. These authors also noted how school technology visions must focus on emerging practices and current technologies.

Visioning is an important part of school leadership. In fact, the practice of visioning can be used to determine a clear focus of a school. Setting a vision has been found to be one of the most important elements of school leadership (Leithwood & Jantzi, 2005). A clear and well-articulated school vision helps define the type of individual an institution wants to develop (Abelman, 2006). School vision statements set objectives for improving the quality of education. Pekarsky (1998) wrote a "well conceived vision is an informing idea that is shared, clean and compelling" (p. 280). Pekarsky further noted that a vision statement is the unifying idea of an institution. It is an agreement between the administration and the critical stakeholders, such as the student body, faculty, and staff regarding the trajectory of the institution.

The formation of a school vision that centers on technology requires building a shared belief among stakeholders about how technology will be used to advance teaching and learning. For example, Reksten (2000) noted that if a technology plan begins with the purchasing of equipment, then the school has already lost sight of the reason for using technology in education. Hence, school leaders must start by evaluating how a school vision relates to technology before thinking about what hardware to purchase. Creighton (2003) noted that even when school leaders create and implement a school vision of technology, they often disregard institutional learning priorities such as the mission of the school. These priorities can and should be evident in a school technology vision statement.

Levin and Schrum (2012) provided eight examples of schools that have demonstrated remarkable achievements through technology integration. In each case, the leader's vision was a pivotal lever of success. These exemplars indicate that "you have to create a vision so that you know where you are headed" (p. 50) and "having a clear vision is essential, but so is testing every new idea against that vision" (p. 113). Levin and Schrum's work provides rich

details of how the vision of the leaders impacts every facet of any technology integration effort.

CONCEPTUAL FRAMEWORK

The research presented in this article is conceptually grounded in the most recent NETS-A as developed by ISTE (2009). The NETS-A "represents a national consensus of the things P-12 school administrators need to know and do to support technology integration effectively in schools" (Brooks-Young, 2009, p. 2). The five standards are intended to help school leaders better understand and refine their role as school technology leaders. Roblyer (2003) noted, "the NETS-A originators recognized the importance of achieving broad-based consensus on what it means to be a technology-ready individual, whether at the student, teacher, or administrator level" (p. 9). Roblyer found that as early as 2003, 45 states have, in full or in part, adopted the NETS-A in their "state technology plans, certification, licensure, curriculum plans, assessment plans, or other official state documents" (p. 12). The following description of the standards has been adapted from the NETS-A as described by ISTE (2009).

The first standard is called *visionary leadership*. A technology leader must have the ability to inspire a shared vision among stakeholders and foster changes that maximize the use of digital resources to support instruction, learning, and student performance. Visionary leaders must: (a) inspire and facilitate a shared vision; (b) iteratively develop, implement, and communicate the technology plan; and (c) advocate for policies, programs, and funding.

The second standard stresses the need for a *digital-age learning culture*. School administrators must ensure that instruction supports digital-age learning and that the building is sufficiently equipped with appropriate digital technologies. A school leader must: (a) ensure instructional innovation focused on digital-age learning; (b) model and promote the use of technology; (c) provide tech-rich environments to meet needs of all learners; (d) ensure effective practice in studying about technology; and (e) promote and participate in global learning communities.

Excellence in professional practice is the third standard. Effective school technology leaders remain current on research and trends in technology as they relate to student learning and provide appropriate teacher professional development. There are four parts to this standard: (a) allocate time, resources, and access to ensure professional growth in technology fluency and integration; (b) facilitate and participate in learning communities; (c) promote and model effective communication among stakeholders; and (d) stay abreast the research.

The fourth standard is titled *systemic improvement*. This standard is focused on data-driven decision-making and school improvement. It includes the following elements: (a) maximize the achievement of learning goals; (b) establishing metrics, collecting and analyzing data, interpreting results, and sharing findings to improve staff and student performance; (c) recruiting and retaining highly competent personnel who use technology creatively and effectively; (d) establishing and leveraging strategic partnerships; and (e) establishing and maintaining an infrastructure for technology.

The final standard is that of *digital citizenship*. This standard focuses on the school leader's responsibility to ensure safe and equitable access to digital tools. This final standard notes how a school technology leader must: (a) ensure equitable access to appropriate digital tools and resources; (b) promote, model, and establish policies for safe, legal, and ethical use of technology; (c) promote and model responsible social interactions related to the use of

technology; and (d) model and facilitate the development of a shared cultural understanding and involvement in global issues.

METHODOLOGY

In this qualitative study, the researchers took a phenomenological approach to explore and understand shifts in creating a vision for school technology leadership. Patton (2002) describes how phenomenological approaches explore "how human beings make sense of experiences and transform experience into consciousness, both individually and as shared meaning" (p. 104). The phenomenon under investigation in this study is the process of setting a school technology vision. The goal was to understand how current school leaders create meaning with regard to school technology leadership visioning. Additionally, this study is exploratory in nature since there is a lack of literature on the intersection of vision setting and school technology leadership. The aim of this study was to explore how and to what extent shifts in school technology leadership visions occur through the participation in a school technology educational leadership course. These shifts were measured by the five NETS-A standards.

The population for this study included two cohorts of doctoral-level students over a span of two years. The study consists of 20 students in total. All participants were current school leaders seeking a Doctor of Education (Ed.D.) in Educational Leadership from a mid-sized, regional university. Although students were given the option to not participate, the participation rate was 100%. The first group consisted of 13 students: 2 males and 11 females. The second group consisted of seven students: three males and four females. The entire population for the study consisted of 25% males (n=5) and 75% females (n=15).

The researchers used inductive analysis to understand the phenomenon of technology leadership visioning. Patton (2002) describes how "the strategy of inductive designs is to allow the important analysis dimensions to emerge from patterns found in the cases under study without presupposing in advance what the important dimensions will be" (p. 56). Inductive analysis paves the way to understanding the extent and depth of change noted in the pre- and post-measures.

Intervention

The intervention was a three-credit, graduate level hybrid course focused on emerging educational technology and school leadership. The course was developed to explicitly address the five 2009 NETS-A. At the onset of the course and after being initially exposed to the NETS-A, students were asked to write a school technology leadership vision. After completing the course, students were asked to revisit their vision statement and edit, revise, expand, or improve upon it based on their experiences in the course.

In this hybrid course, the students met face-to-face eight times for three hours as well as completed online activities. Learning activities included: analyzing and creating technology plans; researching technology funding options; developing and analyzing technology focused professional development for staff; using data-driven decision-making as leaders; investigating legal and ethical issues around technology; and understanding shifts in educational systems as a result of modern digital technologies. Products of this course included: creating a technology vision; analyzing an existing school technology plan and

developing an improved version of that plan; researching and presenting on a class of school management technologies; engaging in biweekly online discussions; and developing a final project focused on school technology leadership.

Data Analysis

Data analysis was guided by the five NETS-A. Changes in vision were categorized as major or minor as measured against each of the five NETS-A. A *major change* in the school technology leadership vision was defined as a conceptual shift between a student's pre and post vision statement. A *major change* was defined as a modification in one's thought processes regarding one of the standards. This was typically exemplified through the addition or a reconceptualization of components of the vision statement. As an example, a student may have only mentioned the first part of visioning (i.e., inspire and facilitate a shared vision) in their first vision statement and then added another aspect of vision setting into their second vision statement (e.g., engage in an ongoing process to develop, implement, and communicate technology-infused plans). The addition of an entire performance indicator within a standard indicated more than just a partial change in understanding, thus qualified as a *major change*.

A *minor change* was defined as a change in language or a shift from partial understanding in the pre-treatment statement to a more robust understanding in the post-treatment statement. A *minor change* could be as simple as rewording a sentence or as involved as refining concepts. To qualify as a *minor change*, only the expansion of a concept was present rather than including a new concept found in the NETS-A. As an example, a student may have written that an administrator should "inspire stakeholders to implement a technology vision plan" in their pre-intervention vision statement and then add that an administrator should "inspire *and facilitate* a technology vision plan." The addition of wording within the same performance indicator signified a more robust understanding of this particular standard.

Inter-rater reliability across the three researchers was achieved through three rounds of individual coding until full agreement was reached across all standards and performance indicators for each of the 20 participants in the study. When disagreement was not quickly resolved, researchers met as a group to discuss coding conflicts and shifts and then coded again individually until consensus was reached.

FINDINGS

The pre and post vision statements were analyzed by seeking elements that addressed each NETS-A. The vision statement was thus the mechanism that gave students the opportunity to contextualize how they would enact school technology leadership and, in effect, display mastery of the five NETS-A. What follows are the results of the analyses as categorized by each of these five standards.

Standard 1: Visionary Leadership. Student 2 showed a major change in Standard 1c. This specific standard focuses on advocating for policies, programs, and funding at the local, state, or national level. In the pre-treatment vision statement, Student 2 wrote, "I envision a school that has the funding and support from local and state governments." This statement was conceptualized differently in the post-treatment vision statement. "In order to receive this funding and make this vision a reality, I will have to be data-driven and goal-oriented." Here,

the original statement was vague while the post-treatment vision statement included a description of the student's specific intention to advocate for funding to support the technology-infused plan.

As detailed in Table 1, all of the students experienced some minor changes across the three indicators of Standard 1. This standard focuses on how a leader engages in an ongoing process to develop, implement, and communicate the technology plan. For example, Student 1 showed a minor change across this standard by initially writing, "stakeholders at every level will be essential in creating, implementing, and supporting the success of the technology plan." The student then rephrased the statement in the post-treatment vision to include the concept of communication. "To accomplish this goal, there will be shared communication of this vision and alignment of curriculum goals." This rephrasing was an example of a minor change since this student was better able to describe future actions but did not reconceptualize the standard

Table 1 Standard 1 Degree of Change

	1a	1b	1c
Minor Change	19	20	18
Percentage of Students	95%	100%	90%
Major Change	1	0	2
Percentage of Students	5%	-	10%

Standard 2: Digital Age Learning Culture. Table 2 details the shifts in Standard 2 of the NETS-A. Standard 2a focuses on the need to ensure that instructional innovation is centered on digital-age learning. Table 2 details the shifts experienced within Standard 2. Three students experienced major changes in Standard 2a as well as Standard 2b. For example, Student 12's initial vision statement did not include any Standard 2a concepts. However the post-vision statement included a new phrase that did have this focus. This student now focused on particular tools and learning experiences such as "hands on learning activities using technology tools will consist of desktops, laptops, global positioning satellite systems, Skype, microphones, clickers, projectors, video and digital cameras, MP3 players and SMART Boards." Likewise, Student 15 did not mention any concept related to Standard 2a in the initial vision statement, but did in the post-treatment vision statement. In the postvision statement, Student 15 discussed how the "curriculum will provide instruction and opportunities for applying digital tools in research. Students will be provided authentic opportunities to collect, organize, analyze, and evaluate information to solve problems and create new ideas." Here, a shift was evident that now included specific tools and techniques that foster digital age learning.

Standard 2b details how an administrator should model and promote the frequent use of technology. A major change coded for Standard 2b was evident in Student 16's vision statement. In the pre-treatment vision statement, Student 16 provided vague phrases such as: "a technology leader within a school has an important responsibility" and "if school administrators do not take the steps necessary to increase the use of technology within a school, it will most likely not be done." Student 16's post-treatment vision statement demonstrated a more mature understanding of Standard 2b. In the final vision statement,

Student 16 noted how "school leaders have a responsibility to be proficient with the different types of technology used within their school buildings."

A minor change in Standard 2b, for example, was found with Student 14. Prior to the course, this student wrote that the "school leader must create a digital culture by which they model frequent and effective use of technology." The student rephrased this concept to be more inclusive of the standard in the post-treatment vision statement by writing "whether it's learning how to use new software or a new technological device, school leaders must challenge themselves to learn and seek out new innovations, just as they challenge their faculty, staff, and students."

Table 2 Standard 2 Degree of Change

	2a	2b	2c	2d	2e
Minor Change	14	14	20	20	18
Percentage of Students	70%	70%	100%	100%	90%
Major Change	3	3	0	0	1
Percentage of Students	15%	15%	-	-	5%

Standard 3: Excellence in Professional Practice. The researchers found major changes under Standard 3a were experienced by 25% of the students in the study. This standard focuses on the need for the leader to allocate time, resources, and access to ensure professional growth in technology fluency and integration. Student 8 experienced a major change in vision under this standard. In the pre-treatment vision statement Student 8 stated, "as a current school leader, it was my first intention to introduce the staff to the infinite number of Internet resources that they were lacking in their daily instruction." Student 8's post-treatment statement however was better defined, more inclusive, and much more manageable. "It is a leader's role to ensure support for ongoing, timely professional development that focuses on teaching and learning and includes many opportunities to use technology in the classroom." This student went from understanding professional growth as being an introduction to Internet resources to ensuring a focus on teaching and learning through the integration of technology as an instructional tool in the classroom.

Another example of a major change for Standard 3a was found with Student 19. In the pre-treatment vision statement, Student 19 wrote that, "professional development and growth are keys to having seamless technology integration." In the post-treatment vision statement, this student described specifics where the "next steps include planning for a technology boot camp for school leaders." This conceptual change models the difference of moving from a general idea of what should be done and shifting to a concrete understanding of what will be done.

Minor changes were found in 95% of the students for Standard 3c. This standard strand focuses on promoting and modeling effective communication among stakeholders. Student 8, for example, modeled a minor change in the understanding of this specific competency by initially writing that the "technology implemented will be relevant to all stakeholders and further develop the skills to produce 21st Century graduates." After participating in the course, Student 8 more clearly noted the collaboration inherent in this

standard by adding that, "when leading a school it is integral to include all stakeholders in the decision making process." Table 3 details the shifts for Standard 3.

Table 3
Standard 3 Degree of Change

	3a	3b	3c	3d
Minor Change	15	18	19	14
Percentage of Students	75%	90%	95%	70%
Major Change	5	2	1	3
Percentage of Students	25%	10%	5%	15%

Standard 4: Systematic Improvement. As shown in Table 4, students demonstrated the most growth in Standard 4b. Here the researchers found that 30% of students experienced a major change, whereas 70% of students demonstrated a minor change. Standard 4b states that administrators should establish metrics, collect and analyze data, interpret results, and share findings to improve staff and student performance. Student 7 vaguely mentioned Standard 4b in the pre-treatment vision statement by writing that "data must have a voice, but the leader must subsequently support the creation of a systemic and sustainable vision and mission." This student's post-treatment vision statement demonstrated a major conceptualization difference. In the post-treatment vision statement, this student wrote, "research-based decisions should be the outcome of good data use and mining. It is the technology leader's responsibility to use the multiple resources, both physical and fiscal, wisely and the use of data and research should drive that momentum." Further, this student went on to write that, "research based decisions can only be made once the area of need is determined through data collection and analysis."

Another example of a major conceptual change under Standard 4b was demonstrated by Student 10. The pre-treatment vision statement included how the school technology leader must stress that the "comprehensive use of technology in the classroom should include areas of instruction, measurement of achievement or growth, data recording and analysis, and communication." The post-treatment vision statement detailed that "the school district should use technology as a data-driven decision-making tool affecting multiple educational areas, including smart budgeting." The idea of including data-driven decision-making as a tool for the administrator is a new concept, which was intentionally developed through the course.

A minor shift was found with Student 10 for Standard 4c. This standard states that an administrator should recruit and retain highly competent personnel who use technology creatively and effectively. Student 10 initially wrote that "the school system should support the integration of technology into curriculum, and provide the appropriate personnel to lead in instructional technology." After the course, the student refined this concept and wrote how "the school system should support the integration of technology into the curriculum, and provide the appropriate personnel to lead and *train new leaders* in instructional technology." This minor change shows that Student 10 was able to build from the original knowledge base and incorporate a better understanding of Standard 4c.

Table 4
Standard 4 Degree of Change

	4a	4b	4c	4d	4e
Minor Change	20	14	20	12	12
Percentage of Students	100%	70%	100%	60%	60%
Major Change	0	6	0	4	4
Percentage of Students	-	30%	-	20%	20%

Standard 5: Digital Citizenship. As shown in Table 5, 25% of the students in the study demonstrated a major shift in understanding for Standard 5b. Standard 5b states that an administrator should promote, model, and establish policies for safe, legal, and ethical uses of technology. Student 1 made no mention of any aspect of Standard 5b in the pre-treatment vision statement, but in the post-treatment statement this student wrote that "the implementation of this plan is dependent on supporting policies at the local and regional level." Student 20 showed a major conceptual change as well by detailing in the post-treatment vision statement that "it is important that I promote, model and establish policies for safe, legal, and ethical use of digital information and technology." In contrast, Student 20's pre-treatment vision statement noted that "the focus of these standards addresses the need for our students to demonstrate an understanding of the basic operations and concepts of technology as well as the ethical, cultural, and societal issues related to technology."

Student 4 experienced a minor change within Standard 5. In the original statement, this student wrote that "as a school community, we will become more globally aware through the implementation and understanding of technology." The post-treatment vision statement was expanded to be that "we will use technology to bridge the oceans and learn from our neighbors. Video calling, international collaboration, and shared presentations will allow the oceans to shrink and the bridge to be built." Here, Student 4 was able to be more specific and explicit about this NETS-A strand.

Table 5
Standard 5 Degree of Change

	5a	5b	5c	5d
Minor Change	18	15	17	18
Percentage of Students	90%	75%	85%	90%
Major Change	1	5	3	2
Percentage of Students	5%	25%	15%	10%

CONCLUSION

Since the intervention focused on activities centered on the NETS-A, the students should have naturally become more versed in these standards upon completion of the course. However this research did not aim to measure the effectiveness of the course. Rather this research focused on understanding qualitatively how students matured in their visions of school technology leadership and what actionable steps they will make when they lead their own schools. Therefore no conclusions can be made about the effectiveness of such an intervention. We can

make some conclusions however about the need to help school leaders create an actionable and manageable vision of school technology leadership.

This study indicates that shifts in school technology leadership visions occur when the content of the graduate course work is closely aligned with the NETS-A. By better understanding the standards and by engaging in activities that directly focus on the five standards, these 20 school leaders were able to better voice and more fully detail how they will lead a school based on a better knowledge of each strand of the NETS-A. This finding has direct implications on leadership preparation coursework. Since most programs lack a course dedicated to the topic of school technology leadership, it is vital that activities are woven into the required coursework that will enable these future school leaders to create visions that directly align with the internationally recognized NETS-A.

Those standards where major shifts were recorded offer a way forward for educational leadership programs across the country. These major shifts indicate those aspects of the standards that resonated most with these students. Thus, for those educational leadership programs that cannot offer a standalone school technology leadership course, but rather want to infuse this type of content into the existing coursework, these aspects of the standards might be more accessible and more valuable to pre-service leaders.

The larger takeaway is that if educational leadership programs want to develop 21st Century leaders who can lead technology-suffused schools, then professors in such programs cannot ignore the NETS-A. Mastering these standards is a vital element in this paradigm shift for pre-service leaders. Understanding how students think about vision setting as it pertains to school technology leadership informs programs and provides us all with context to link to our current content and program activities.

Schrum and Levin (2009) noted how "most school leaders have a vision for what they want their students to be like when they leave their schools and move on to further their education or enter the work world... that vision [rarely] includes an understanding of the role of technology in educating 21st-century students" (p. 6). This exploratory study indicates that when a course introduces content and concepts that shift school leaders paradigms, these leaders are better prepared to implement a technology leadership vision that takes into account the needs of diverse stakeholders.

Technology is not changing education as a matter of degrees requiring slight refinements. Rather, technological-suffused change is a seismic step that requires new lines of thought and expanded scopes of vision. By exploring how a school technology leadership vision morphs, adapts, and matures at the individual level, we are better able to understand how a vision without such interventions may impede progress in creating future ready, innovative learning environments.

Creighton (2003) noted, "because technology is so ubiquitous in our society and schools, effective leadership now must include leadership in technology" (p. 88). He further warned that, "without appropriate connection between leadership and technology implementation, potential exists for a *mishmash* of effects" (p. 87). Institutions of higher education that prepare school leaders would be remiss if they do not proactively focus on school technology leadership in their programs. The demands on school leaders today require that they become effective users, supporters, and planners of technology. Although the NETS-A provides guidance as to what this looks like, the onus is on educational leadership preparation programs to create meaningful experiences that combine technology and leadership in ways that lead to mastery of these standards.

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Transforming Equity-Oriented Leaders: Principal Residency Network Program Evaluation

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After 12 years focused on developing school leaders who act as change agents for educational equity, the Principal Residency Network (PRN) partnered with Johnson and Wales University's Center for Research and Evaluation to conduct a utilization-focused (Patton, 2002) program evaluation funded by a grant from the Rhode Island Foundation. The PRN is a principal preparation program of the non-profit organization, the Center for Leadership and Educational Equity. This sequential explanatory mixed methods study explored PRN graduates' outcomes and perceptions of the program, with an overarching purpose of creating a coherent data collection and inquiry process to be used by program staff on an ongoing basis. Following the development of an evaluation framework, Phase I of the study consisted of collecting assessment data and feedback from current PRN participants, as well as administering a survey questionnaire to recent graduates of the program (N=14), previously administered in 2005 (N=21) and 2009 (N=6). Phase II of this evaluation was designed to further explore recent graduates' perceptions of the nature and relevancy of the program in developing their commitment and skill to lead for equity in order to recommend program improvements; N=7 participated in a 90 minute focus group. Findings indicated four conclusions from which recommendations were drawn: the program is achieving strong results, participants perceive the program to have an interconnected and coherent focus on preparing them to be equity-oriented leaders, the mentor is a critical component, and modeling the cycle of inquiry created through this evaluative study is important.

PROGRAM FRAMEWORK

The Principal Residency Network (PRN) is a principal preparation program of the Center for Leadership and Educational Equity. The program was initiated in 2000 as a state-approved administrator certification program featuring an intensive residency with a mentor principal and a cohort structure. The PRN has continuously identified, implemented, and refined the research-based practices identified in Table 1 through ongoing efforts to collect and evaluate data for the purpose of program improvement. For a more extensive discussion of the theoretical framework and literature that supports the principal preparation practices listed in Table 1 and used by the PRN, see Braun, Gable, & Kite (2011a; 2011b).

NCPEA Education Leadership Review, Vol. 14, No. 1– March 2013 ISSN: 1532-0723 © 2013 National Council of Professors of Educational Administration

Table 1 Principal Preparation Program Practices and Supporting Literature

Practices	Supporting Research and Reviews of Literature
Structural	
 Partnerships between 	Darling-Hammond, LaPointe, Meyerson, Orr, & Cohen, 2007;
universities and districts	Jackson & Kelly, 2002; Milstein & Krueger, 1997; Murphy,
. D. 1 1 2	1993, 1999; Orr, 2006; SREB, 2006; USDOE, 2004
 Program developers' commitment 	Darling-Hammond et al., 2007; USDOE, 2004
• Rigorous entrance	Bredeson, 1996; Darling-Hammond et al., 2007; Hart & Pounder,
requirements for strong	1999; Jackson & Kelly, 2002; Lauder, 2000; Leithwood & Jantzi,
and diverse candidates	1996; Milstein & Krueger, 1997; Murphy, 1993; Orr, 2006;
Wild 42 625 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	SREB, 2006; USDOE, 2004
• Financial support, release	Darling-Hammond et al., 2007; Leithwood & Jantzi, 1996;
time for participants	Milstein & Krueger, 1997; SREB, 2006
• Supportive district and state infrastructure	Darling-Hammond et al., 2007; Orr, 2006; SREB, 2006
 Program monitoring for 	Lauder, 2000; Leithwood & Jantzi, 1996; Milstein & Krueger,
improvement	1997; Orr, 2006; SREB, 2006; USDOE, 2004
Content	
 Standards-based content 	Darling-Hammond et al., 2007; Jackson & Kelly, 2002; Lauder, 2000; Orr, 2006; SREB, 2006; USDOE, 2004
 Coherent and relevant 	Darling-Hammond et al., 2007; Jackson & Kelly, 2002; Milstein
curriculum	& Krueger, 1997; Orr, 2006; SREB, 2006; USDOE, 2003
 Individualized content 	Jackson & Kelly, 2002; Lauder, 2000; Leithwood & Jantzi, 1996
 Focus on shared 	Elmore, 1999; Jackson & Kelly, 2002; LaPoint, Meyerson, &
instructional leadership	Darling-Hammond, 2005; Leithwood & Jantzi; 1996; McCarthy, 1999; Orr, 2006; SREB, 2006
 Focus on equity and 	Jackson & Kelly, 2002; LaPoint et al., 2005; Leithwood & Jantzi,
school reform	1996; McCarthy, 1999; Murphy, 1999; Orr, 2006; SREB, 2006
<u>Delivery</u>	
 High quality internship 	Darling-Hammond et al., 2007; Hart & Pounder, 1999; Jackson &
	Kelly, 2002; Lauder, 2000; Leithwood & Jantzi, 1996;
	Leithwood, Seashore Louis, Anderson, & Wahlstron, 2004;
• Droblem based learning	Murphy, 1993; SREB, 2006; USDOE, 2004 Darling-Hammond et al., 2007; Hart & Pounder, 1999; Jackson &
 Problem-based learning 	Kelly, 2002; Lauder, 2000; Leithwood & Jantzi, 1996;
	Leithwood et al., 2004; McCarthy, 1999; Murphy, 1993, 1999;
	Orr, 2006; SREB, 2006
 Mentoring or coaching 	Darling-Hammond et al., 2007; Jackson & Kelly, 2002; Lauder,
	2000; Leithwood & Jantzi, 1996; Milstein & Krueger, 1997;
	Murphy, 1993; SREB, 2006
 Cohort structure 	Darling-Hammond et al., 2007; Hart & Pounder, 1999; Jackson &

	Kelly, 2002; Leithwood & Jantzi, 1996; McCarthy, 1999;
	Milstein & Krueger, 1997; USDOE, 2004
 Habit of Reflection 	Davis, Darling-Hammond, LaPoint, & Meyerson, 2005; LaPoint
	et al., 2005; Lauder, 2000; Leithwood & Jantzi, 1996; Milstein &
	Krueger, 1997; SREB, 2006
 Performance assessments 	Hart & Pounder, 1999; Jackson & Kelly, 2002; Lauder, 2000;
	Leithwood & Jantzi, 1996; Orr, 2006; SREB, 2006; USDOE,
	2004

With a mission to develop principals who champion educational change through leadership of innovative schools for the purpose of improving student achievement, the program has a significant focus on preparing administrators to lead for equity. This approach is grounded in the assumption that educational leaders can increase equitable outcomes for all students in schools through specific practices (Ross & Berger, 2009). The equity-oriented leadership practices the PRN aims to enable school leaders to enact are represented in Table 2.

Table 2
Leadership Practices for Equity Identified by Ross & Berger (2009)

<u>Curriculum</u>	Encourage staff members to talk about issues of diversity and social
<u>Interpretation</u>	justice
	· Model equity beliefs for staff
	· Clarify misconceptions about equity
	· Create a safe, affirming school environment
Instructional	Enable teachers to provide students with the support they need
<u>Practices</u>	· Provide all students with access to the whole curriculum
	Recognize the potential for bias in special education identification
	· Support research-based instructional strategies
Assessment	Monitor progress toward achievement gap reduction
and	· Use appropriate accommodations for assessments
Evaluation	Discourage strategies that involve gaming the accountability system
	· Celebrate all achievement gains
	· Increase the reliability of assessments for diverse student populations
	· Avoid cultural, linguistic, and gender bias in tests
Community	Recognize the expertise of parents and community members
<u>Involvement</u>	· Create partnerships with parents to support learning

METHODOLOGY

As a utilization-focused program evaluation design (Patton, 2002), the study began with the development of an evaluation framework in partnership between the PRN a research team at the university. Figure 1 depicts the framework in the form of a Theory of Action (TOA). The goal was to use the program evaluation process as an opportunity to develop a consistent cycle of inquiry in which the preparation program staff could collect, analyze, and use data for the purposes of improving the program and modeling the inquiry process taught to aspiring

principals to use in schools (Love, 2009). Therefore, the TOA/Evaluation Framework articulates the *Enabling*, *Intermediate*, and *Long-Term* program outcomes; the indicator data collected on the outcomes (bulleted in italics); and the timeline for data collection. Phase I of the study consisted of administering a survey questionnaire to recent graduates of the program and collecting assessment data and feedback from current PRN participants accessible at the time of the program evaluation (see indicator data underlined in Figure 1). Phase II was designed to further explore recent graduates' perceptions of the nature and relevancy of the program in developing their commitment and skill to lead for equity, an intermediate outcome in the TOA/Evaluation Framework. This section will describe the methodology for Phases I and II.

PRN Practices	Enabling Outcomes Measure annually	Intermediate Outcomes Measure 2-3 years	Long-Term Outcomes Measure every 5 Years
Structural	Caliber of Participants	Commitment/Skill to	Increased Student
 partnerships 	 Ratings on aspiring and 	Lead for Equity	Achievement in Schools
• supportive district/state infrastructure	mentor principal admission rubrics	•Grad focus group	Lead by Graduates • Growth rates compared
 monitoring for 			to similar schools
improvement	Performance on	Completion of Program	
 support for participants rigorous entrance	Program Experiences and Assessments	•Graduation rate	Reduced Equity Gaps in Schools Lead by
requirements	•All rubric ratings	Obtaining Leadership	Graduates
		Positions	 Reduced gaps between
Content/Curriculum	Proficiency and Growth	 Program database and 	subpopulations
coherent, standards-based,	in Leadership	<u>Grad Survey</u>	
individualized curriculum	Standards		Improved School
focused on instructional	 Final exhibition scores 	Participation in Post	Learning Environment
leadership for equity	 Pre and Final mentor 	Graduate Professional	in Schools Lead by
	<u>assessment</u>	Development	Graduates
Pedagogy/delivery		 Grad Survey and 	•State survey data
 intensive residency 	Quality of Program	program databases	
 cohort structure 	Experiences		Increased Quality of
 mentor support 	 Mentor feedback 	Proficiency in National	Educational Leaders in
 authentic assessments 	•Grad Survey	Leadership	Statewide Community
 problem-based learning 		Competencies	of Practice
reflectionmodeling adult learning		•Score on ETS exit exam	 State educator evaluation data or preparation program report card
Eigene 1 Theory of A	tion/Explustion From	romlr.	1

Figure 1. Theory of Action/Evaluation Framework

Note. The indicators of the outcomes are in italics. As part of this study, data was collected for the underlined indicators. Data was not available and/or will be collected at a later date for the other indicators.

Phase I: Data from Program Databases and Assignments

Prior to the period of this program evaluation, the PRN program only tracked completion of participants in the program, current roles of graduates of the program, and data from graduate surveys. Theses data were not adequate for program staff to engage in an ongoing cycle of inquiry to improve the program. Therefore, to measure the Enabling Outcome, *Performance*

on Experiences and Assessments, detailed rubrics were created for each learning experience and assessment, and program staff calibrated their scoring on all assessments throughout the study year to insure inter-rater reliability was high. Likewise, to measure another Enabling Outcome, Proficiency and Growth in the Leadership Standards, the rubrics used during participants' final exhibition and by the mentor principals' to rate aspiring principal participants' proficiency were revised, articulated across performance levels, and program staff and mentor principals engaged in calibration exercises. Finally, the Enabling Outcome, Quality of Program Experiences, was measured in the survey discussed in the subsequent section and by analyzing the mentor principals' written responses on quality, challenges, and improvements for program. The data collected for these four TOA/Evaluation Framework Outcomes were compiled and used by program staff to make program adjustments at the midpoint and at the end of the year.

Phase I: Data from Graduate Survey

Two previous graduate surveys had been conducted prior to this study, the first in 2005 (*N*=21) and the second in 2009 (*N*=6); therefore, the same survey was sent out to all participants who had graduated in the past three years (*N*=21). Of those graduates mailed questionnaires, 66% (*N*=14) completed and returned them. The *PRN Graduate Survey* was designed to collect data on graduates' perceptions of quality, challenges, and improvements for the program. Four of the Intermediate Outcomes, *Quality of Program Experience*, *Obtaining Leadership Positions, Commitment/Skill to Lead for Equity, and Participate in Ongoing Professional Development* were measured by data collected from survey items. To determine content validity, the survey underwent content review by four educational leadership professors and instructors.

Descriptive statistics were run for all the items that contained a rating scale; for all the open-ended items, the written responses were compiled. The means for the items that measured the Enabling Outcome, *Quality of Program Experience*, were compiled in a spreadsheet that contained means for the same items from the 2005 and 2009 surveys. The means for all three years by item were represented together to allow for trend analysis.

Phase I: Data from State Database

To measure the Long-term Outcome, *Increased Student Achievement in Schools Lead by Graduates*, data were gathered from a state database. The Rhode Island Department of Education databases (RIDE, 2012) were used to collect data on student achievement in schools lead by program graduates. PRN graduates who had been a principal or instructional leader (e.g., Director of Curriculum, Co-Principal) in the elementary or middle school during at least the three-year period between 2008-2011 (*N*= 20) were included in the study. Student achievement data were represented by the mean of the index proficiency scores for all students in a school on the English Language Arts (ELA) and Math New England Common Assessment Program 2008/09 and 20010/11 exams (RIDE). The school level (elementary or middle) and type of school (suburban, urban ring, or urban) were entered in a database with the index proficiency scores for all program graduates who had been a principal in the three-year period and for every school in the state to use as comparison groups (*N*=225). After the data were disaggregated by level and type of school, to measure the growth or increase in

student achievement, the means from the 2008 and 2011 index proficiency scores were compared for the PRN (N=20) and for everyone other school in the state. Due to the small number of program graduates once disaggregated, inferential statistical analysis is not possible; however, since this is a critical Long-term Outcome, it was important for the study to note as descriptive data.

Phase II: Data from Focus Group

Phase II participants included program graduates from 2008-2011 who were sent the PRN Graduate Survey and agreed to attend the focus group session. The final group (N=7) represented a cross-section of class years, school types, and professional backgrounds. A focus group moderator's guide was developed for the focus group session, using standard formatting for the sequence of questions (Krueger & Casey, 2009). Eight questions for this topic were designed to range from demographic and employment information to personal reflections and assessments of how the program prepared participants to 'lead for equity'. Specific content questions regarding barriers or enhancing experiences that assisted participants with their professional development, and questions regarding their mentor relationships, papers and exhibitions, and cohort/network meetings further added to the discussion. The final question was designed to solicit 'advice' from program participants regarding program strengths and weaknesses and encourage debriefing as a way to conclude the conversation without emotional conflict or discomfort.

The data collection procedures comprised of a single focus group session, conducted in late spring on University premises, facilitated by an external moderator for a 90-minute session. The session was audio taped, consent forms were distributed and 'ground rules' were conveyed prior to the beginning of the questioning.

Focus group data were transcribed following the session, and raw data files were analyzed using a sequence of coding, content analysis and thematic clustering. Modifying Krueger and Casey's (2009) Classic Approach for focus group data analysis, and Miles and Huberman's (1994) three-tier coding strategy (descriptive, interpretative, and pattern codes), data analysis process encompassed 'chunking' the data until it could be transformed into themes and categories, using participants' words and expressions to illustrate their 'meaning essence' (Miles & Huberman, 1994). The final stage of analysis involved reviewing transcripts to connect participant's quotes, stories and expressions with the thematic clusters in order to develop a narrative that reflected the findings (Krueger & Casey, 2009, p. 122). Trustworthiness strategies included ''thick descriptions', peer debriefing, and memberchecking to ensure rigor and credibility in the results (Lincoln & Guba, 1985).

KEY FINDINGS

Phase I Findings from Program Assessments, Feedback and Graduate Surveys

Enabling Outcome: *Performance on Program Experiences and Assessments.* Data were compiled from rubric rating scales for each major assignment completed by aspiring principal participants in the program during the 2011/12 school year (*N*=18) and presented by ranked mean in Table 3. Aspiring principals must earn a "3" on each assignment to complete the program. If they earn less, on many assignments they have a limited opportunity to revise

and resubmit the work. One notable finding is that the top five experiences and assessments in Table 3 on which participants scored highest were either conducted or turned in toward the end of the year. Though not apparent in the data in Table 3, another interesting result was that the Learning Plan and the Action Research Paper had the most amount of revisions required for participants to earn at least a 3. Both assessments require authentic leadership and ongoing effort to engage in the complicated assignment structure for aspiring principals to demonstrate learning. Due to the low initial scores on these two assignments, major revisions were made to the instruction to increase student success. The intention is to continue to compile and analyze the data each year to look for trends and make improvements.

Table 3
Performance on Program Experiences and Assessments (N=18)

Program Experiences and Assessments	Mean
School visits	4.0
End-of-Year Exhibition	4.0
Narrative Reflections	3.8
Clinical Visit 3	3.7
End-of Year Paper	3.6
Summer Residency	3.5
Fall Shadowing	3.5
Learning Plan	3.5
End-of-year Mentor Assessment	3.5
Readings	3.4
Mid-year assessments	3.4
Action Research Paper	3.3
Networking/Formal Learning	3.2
Portfolio/evidence	3.2
Vision Paper	3.1
Mentor meetings/coaching	3.1

Note. Scale associated with all items was 1=inadequate, 2=approaching, 3=adequate, and 4=distinguished.

Enabling Outcome: Proficiency and Growth in Leadership Standards. This outcome was measured with two data sources. The first was from the final exhibition scores for aspiring principals completing the program in 2012 (N=14). Final exhibitions are a time for participants to articulate what they have learned and how they learned it around each leadership standard. The exhibitions are scored on a 4-point scale by every PRN staff member, mentor, and aspiring principal present for the exhibitions. The scores are averaged by standard (see Table 4). All six standards are well above the adequate level, with Standards 1 and 2 being the highest. Standards 1 and 2 contain practices that are the heart of what is entailed in instructional leadership. Most of the participants in the PRN come with a large degree of instructional leadership experience, as this is a pre-requisite looked at closely in the admittance screening process. Standard 6 was the lowest score in Table 4. The Educational Systems Standard includes practices that require leaders to engage in dialogue and advocacy

outside of their schools. These practices are more challenging for aspiring principals to engage in during their residency year(s).

Table 4
Final Exhibition Scores by Standard (N=14)

Leadership Standards	Mean
Standard 1: Mission, Vision, Goals	3.7
Standard 2: Learning and Teaching	3.7
Standard 3: Managing Systems	3.6
Standard 4: Collaborating	3.6
Standard 5: Ethics Integrity	3.6
Standard 6: Educational Systems	3.3

Note. Scale associated with all items was 1=inadequate, 2=approaching, 3=adequate, and 4=distinguished.

The second piece of data collected to measure the outcome, *Proficiency and Growth in Leadership Standards*, were the pre and final mentor assessments of the aspiring principal participants completing the program in 2012 (*N*=14) using a 4-point scale on the leadership standards rubric. Each aspiring principal has a mentor principal with whom they work closely. The PRN considers the mentor the primary instructor for the aspiring principals. Therefore, the mentor is in the best position to rate the proficiency of the aspiring principals throughout the year. While there are other data to triangulate aspiring principals' proficiency (e.g., exhibitions, portfolios, papers), the mentor rating provides critical feedback and perspective. Mentors rate aspiring principals on all the sub-sections of the standards at the beginning, middle and end of the year. Each standard's sub-section were averaged and the means for the pre-assessment, the final assessment, and the growth (difference between pre and final) are represented in Table 5.

All standards were rated at or near *approaching* at the pre-assessment and all standards were *adequate* at the final assessment. The mentor's pre-assessments validate the PRN screening process because the highest two standards are 1 and 2, which are the core practices for instructional leaders. The lowest scoring pre-assessments are for Collaborating with Stakeholders (Standard 4) and Educational Systems (Standard 6), though these two standards had some of the highest growth. Both these standards are difficult to enact as a classroom teacher, and the residency as an aspiring school leader gives great opportunity to engage and learn in the broader educational arenas represented by these standards. Interesting, the highest scoring final assessment is for Standard 5 (Ethics and Integrity). As scholars like Sergiovanni (1992) have advocated, the heart of school reform work for a leader has a heavy moral component. In the PRN, a major focus of the preparation is on enabling participants to become equity-oriented leaders (Skrla, McKenzie, & Scheurich, 2009) which requires a great deal of personal growth (articulated further in focus group findings), as well as leadership that models and challenges others to move schools from being agents of social reproduction to forces for social change (Ross & Berger, 2009).

Table 5 *Mentor Ratings of Aspiring Principal Participants by Standard (N*=14)

Leadership Standards	Pre-Assess Mean	Final Assess Mean	Growth Mean
Standard 1: Mission, Vision, Goals	2.4	3.7	1.3
Standard 2: Learning and Teaching	2.2	3.5	1.3
Standard 3: Managing Systems	2.0	3.5	1.5
Standard 4: Collaborating with Stakeholders	1.9	3.6	1.7
Standard 5: Ethics Integrity	2.1	3.8	1.7
Standard 6: Educational Systems	1.7	3.3	1.5

Note. Scale associated with all items was 1=inadequate, 2=approaching, 3=adequate, and 4=distinguished.

Enabling Outcome: Quality of Program Experiences. This outcome was measured through two data sources, the first of which was from written feedback solicited from current mentor principals in the program (N=18). The feedback was organized into four categories represented in Table 6. The mentors recognized many of the core practices of the program (see Table 1) as valuable, such as the cohort structure, the authentic residency, the practice of reflection, and the use of standards with individualization which can be seen in the use of a learning plan and coaching from an advisor. The universal concern mentors have is time to give their mentee, as well as the program. The areas of self growth mentors identified show that the nature of the learning relationship between mentors and aspiring principals is reciprocal. As with the rest of the outcomes data presented, the data on the improvements the mentors recommended have already been used to make changes to the program.

Table 6
Feedback from Mentor Principals in 2012

Mentors Identify as Valuable about the Program

- Cohort structure and meetings and networking with colleagues of diverse perspectives
- Residency is authentic leadership practice for aspiring principals
- Systematic reflection throughout the program, including mid-year work
- Learning Plan structure to guide the learning, and alignment with standards
- Mentor Standards used as a guide
- *Resources of PRN Advisors* as coaches
- Bigger impact of PRN on school as a resource to build leadership/learning communities

Mentors Identify as Challenges to the Program

• Taking *time* to participate while balancing growing priorities

Mentors Identify as Improvements Needed to the Program

- More Sharing with Mentors on Aspiring Principals (AP) progress and learning
- More/continued use of protocols to get feedback from their PRN cohort
- Create *more cohesion within cohort* since it feels larger, less 'homey'
- Have ways to make up missed network meetings

Mentors Identify as Areas of Growth for Themselves

- Skills in *distributing leadership* and building learning community
- Prioritizing *time for reflection*
- Own overall leadership practice Learned alongside AP
- *Evaluating* AP learning
- Scaffolding/coaching and showcasing APs learning and work

The second data source to measure the *Quality of Program Experiences* was from the graduate perspective and collected through the *PRN Graduate Survey* distributed to participants who had graduated between 2008-2011 (*N*=14). The same survey had been administered to previous graduates of the program in 2005 and 2009. The results displayed in Table 7 are from the items that asked participants to rate on a 5-point scale the degree to which each of the program experiences and assessments gave them the knowledge and skill to be prepared to lead change in schools. Table 6 contains the mean responses for all program experiences for all three administrations of the survey and ranked by the mean of all three surveys for each experience.

The vast majority of the program experiences were rated at a considerable extent or great extent throughout all three administrations of the survey. Notably, a few of the experiences were rated highest across nearly all three years: *Internship at school*, *Learning* relationship with mentor, and PRN Advisor visits and feedback. All three of these speak to the importance of the authentic learning that happens through the residency with supportive mentoring and coaching that happens from the mentor and advisor. The lowest-rated experience in the 2005 and 2009 PRN Graduate Surveys was the Feedback Circle; however, after improvements were made based on the survey data, this experience was improved. The Feedback Circle was originally a small group of colleagues that the aspiring principal was supposed to convene to ask for feedback on their leadership; however, the structure was unclear. The Feedback Circle experience was modified so that aspiring principals identify the core group of colleagues that they will be working with to implement the initiative in their Action Research. Aspiring principals have to continuously find ways to get buy-in, grow commitment, change practice, and get feedback from this group. This reinforces the practices of shared instructional leadership (Marks and Printy, 2003) and makes the concept of a feedback circle more relevant.

Table 7
Graduate Ratings on Degree Experiences Prepared Them to Lead Change

PRN Experiences/Assessments	2005 Survey	2009 Survey	2012 Survey	All Surveys
	M(N=21)	M(N=6)	M(N=14)	M
Internship at school	5.0	5.0	4.8	4.9
Learning relationship with mentor	4.4	4.8	4.6	4.6
PRN Advisor visits and feedback	4.7	4.6	4.6	4.6
Required readings	4.5	4.4	4.5	4.5
Final Exhibition and feedback	4.3	4.4	4.5	4.4
Mid-year Exhibition and feedback	4.1	4.4	4.7	4.4
Action Research Project	4.4	4.4	4.4	4.4
Meetings with AP's & Mentors	4.5	4.2	4.5	4.4

Vision Paper	4.5	4.4	4.3	4.4
Portfolio, review, and feedback	4.7	4.4	4.0	4.4
Non-PRN workshops/trainings	4.4	4.6	4.1	4.4
Final Paper/feedback	4.4	4.2	4.4	4.3
Learning Plan	4.6	4.2	4.1	4.3
Reflections	4.3	4.6	3.9	4.3
Meetings with AP's only	4.5	3.6	4.7	4.3
Mid-year Paper/Assessment	4.1	4.2	4.3	4.2
Visits to other schools	4.1	4.2	4.0	4.1
Mid-year Mentor Paper/Assessment	4.0	4.4	3.9	4.1
Final Mentor Ratings	4.0	4.0	3.8	3.9
Feedback Circle	3.5	3.6	4.1	3.7

Note. Scale for all items: 1=Not at all, 2=a little, 3=somewhat, 4=a considerable extent, 5=a great extent.

Intermediate Outcomes: Completion of the Program and Obtaining Leadership Positions. Since inception, the program has monitored completion data and the positions that graduates assume after completing the program. From 2000-2012, the program has had a 99% completion rate. Of the 83 graduates, 90% (N=75) have been hired into building, district or non-profit leadership roles. The remaining 10% (N=8) have remained in teacher leadership roles. The types of current leadership roles the graduates (N=83) have assumed are displayed in Table 8. The majority (77%) of graduates are currently in school or district administration or coaching positions in Rhode Island. Most of the remaining graduates, with the exception of those who have remained teacher leaders or retired, have moved from building leader positions to other leadership roles at the district level or in non-profit organizations and higher education.

Table 8
Current Leadership Roles of Graduates

Leadership Roles	N	%
Principal/Director	31	37%
Assistant Principal	16	19%
District Administration	9	11%
Instructional Coach/Coordinator	8	10%
Teacher Leader	8	10%
Retired/Moved Out-of-State	6	7%
Director/Administrator at Educational Non-Profit Organization	3	4%
Higher Education Administrator/Instructor	2	2%

Long-Term Outcome: *Increased Student Achievement in Schools Lead by Graduates.* State assessment data was used to compare student achievement between PRN graduates' schools and non-PRN graduates' schools. Table 9 and Table 10 represent the student achievement data for PRN graduates' who had been a leader in their school between 2008-2011 (*N*=20) compared to similar demographic schools. Due to the small sample size, the findings for this outcome are descriptive, as no statistical significance tests were

appropriate to conduct. In five out of eight areas, program graduate schools evidenced greater growth than comparison schools: Urban Ring Elementary Schools in ELA, Urban Middle Schools in ELA, Suburban Elementary in Math, Suburban Middle in Math, and Urban Middle in Math.

Table 9
Comparison of PRN Graduates to Non-PRN Graduates' School English Language Arts (ELA)
Scores on a State Assessment in 2008 and 2011.

School Category		ELA 2008	ELA 2011	ELA Growth
	N	M	M	between 2008-2011
PRN Suburban Elementary	9	92.16	93.36	1.20
Non PRN Suburban Elementary	62	91.44	93.35	1.90
PRN Urban Ring Elementary	6	89.48	92.55	3.06
Non PRN Urban Ring Elementary	49	89.07	90.96	1.88
PRN Suburban Middle	3	92.55	94.71	2.16
Non PRN Suburban Middle	24	91.45	94.02	2.57
PRN Urban Middle	3	75.65	83.63	7.98
	3			
Non PRN Urban Middle	11	77.79	83.72	5.93

Table 10 Comparison of PRN Graduates to Non-PRN Graduates' School Math Scores on a State Assessment in 2008 and 2011.

School Category	N	Math 2008 <i>M</i>	Math 2011 <i>M</i>	Math Growth between 2008-2011
PRN Suburban Elementary	9	90.71	92.99	2.28
Non PRN Suburban Elementary	62	89.31	91.45	2.14
PRN Urban Ring Elementary	6	84.76	86.40	1.64
Non PRN Urban Ring Elementary	49	84.02	85.70	1.68
PRN Suburban Middle	3	88.22	90.93	2.71
Non PRN Suburban Middle	24	87.51	89.44	1.93
PRN Urban Middle	3	63.63	72.97	9.33
Non PRN Urban Middle	11	70.30	72.70	2.40

Phase II Findings from Focus Group

Phase II findings are reported according to the inter-related elements known to affect participants' engagement and satisfaction with the program. Results are presented in the participants' own words, capitalizing on the stories, details, and multiple realities that were

expressed in interactive discussions during the focus group session. The five key themes that emerged from the findings are presented.

Theme #1 Making Hard Decisions and Bringing People Along!: Residency Experiences, Challenges and Rewards. Participants shared detailed accounts of their residency placements. Most participants described the situations that arose as instances where they could see the direct relationship between what they learned in the program and their ability to navigate difficult situations 'on the job':

- "You start the program with certain knowledge and readings and a certain picture in your head about what you are going to do in your residency, and then things happen that change that picture... and you look back and say, 'Gee! I thought I was going to do one thing and I ended up doing another and its really ok!"
- "You take what you learn in the program and you try to help people become aware of their biases how they are not being equitable, and you start pushing those things as a leader ... and you start to see that people were afraid to own those biases... but you eventually see the fruits of your efforts..."

Participants also described the challenges of their residency experiences. Most graduates found that finding the balance between two jobs, plus the program, plus their personal lives, was an enormous obstacle to overcome; as one participant expressed, "I think that one of the things that was just so hard was balancing two jobs... and not letting either one suffer...". Equally challenging was 'finding one's place', or trying to envision oneself in a leadership role different from prior positions or experience. One PRN graduate described the duality as "What hat are you wearing? What alliances are you honoring?", followed by her later conclusion that "...now that I look back at it, it did prepare me for the eventual break from the past into a new leadership role."

A common sentiment was learning how to make the difficult decisions, especially when one's role had shifted within a community in which they had long resided:

- "At the end of the day, when hard decisions needed to be made and hard conversations needed to happen, you look towards the goal: you look towards the mission of your school and your vision and that is compelling..."
- "I came into the leadership role from the perspective as a classroom teacher and it wasn't quite as easy as I thought. You see things from multiple perspectives all of a sudden, and then you realize what leadership is like, what it's like to be in the classroom, and you marry the two together... to be an effective leader of children, of teachers, and of colleagues."

Theme #2 Walking a Fine Line – Finding the Balance: Mentor Relationships. As one participant stated, "The mentor relationship is complicated!". Communication between and among participants and their mentors played a vital role in the development of each individual as a professional, a leader, and a contributing member of their educational settings. Conversely, participants described the numerous challenges that accompanied the substantial benefits of working with their mentors. As another participant stated, "these mentors are

grooming you to be their next assistant, so they have a vested interest in your success... they don't want you to look foolish, so their investment involves being careful about what you do or don't do while you are there...".

While working with mentors created important professional opportunities for each participant, these relationships also generated tensions over power and control, embedded in the experiential learning that occurred. Participants acknowledged the need to learn by doing, and they admitted that the opportunity to assume a leadership role was sometimes difficult, depending on the mentor. As one PRN graduate expressed, "you would start to facilitate a discussion with a parent, and then you would be stepped on, and suddenly you were no longer facilitating the discussion...". A range of sentiments about these control issues included the following sentiments:

- "I remember one of the questions during our interview, when they were asking us about the partnership... and my mentor was asked, directly, whether they could 'let go of control?' and my mentor honestly expressed his concern by saying 'it's going to be a challenge!""
- "We had a lot of difficult conversations about the experiences I needed to have, and there was talk... 'oh, yes! I will let you have more control', but it never came to pass..."
- "I saw how my mentor struggled with control and I realized that if I had someone under me, working in this way, I am not sure I would be able to let go and allow someone else to run that conference or talk to that parent..."

This struggle brought with it a greater sense of self-awareness, for both parties:

The flip side of this experience is that the mentors have the opportunity to learn just as much as the aspiring principals... if they let themselves learn. If they are willing to open up and let learning take place...a kind of double-edge sword that would be difficult for any of us"

The conversation about mentor relationships, both positive and negative, generated discussion about the options for improving that piece of the PRN experience. Several participants advocated for 'multiple mentors' or a different screening process for mentors; as one participant noted, "...there is a lot to be said for having multiple mentors, multiple viewpoints on how to manage situations and assume leadership":

- "It is complicated and I know this is an intense program but the idea that you are learning from just one person, and that somehow you are locked into one set of ideas... well, that may not be the best option?"
- "Why couldn't mentorship come from different sources, by having several mentors?"

• "I think having multiple mentors was what ended up happening to me naturally, just because of my situation... and I learned a lot, sometimes different things, from both of them..."

Participants transitioned from this concept of having several mentors to the focus on how to conduct screening of potential mentors, and offered the following recommendations:

- "I would recommend that just as the aspiring principal needs to go through the screening process, so should the mentors... they are principals in schools and are under a lot of pressure...There should be a sense of what the relationship absolutely must involve and what is really needed for true mentorship..."
- "Maybe someone in a different school or a different role can balance what you are already doing with your mentor to add to what you are learning... and the principals, as mentors, have so many demands on their time that to expect them to provide all the knowledge and experience you need may be unrealistic?"

Theme #3 Focused Hard Work and Reflection!: PRN Program Components. The majority of participants indicated that while they spent considerable time either in class or in preparing for class, the value of the total experience could not be over-stated. The intentional program design, which incorporated projects, papers, reflection, and presentations, comprised just a few of the important elements of this experience:

- "One of the special things about the program is that it is individualized, based on who you are and where you are and the needs of the school and district you represent...it is one of the greatest benefits of the program!"
- "The specifics of the program, the papers, the tools, the learning devices, the portfolios... we could extract data from the schools and apply what we had learned... it was immediately transferable!"
- "In a way, it is still an obstacle for me... trying to move something or use what I learned in PRN, to increase equitable outcomes... having people realize their own influence in that perspective and realizing that people are afraid to own 'equity' and that their role is to recognize that they can influence and lead that effort..."

These sentiments mirror most of the comments offered during the discussion, to include a significant element focused on personal reflection:

- One of the biggest pieces of the program that I took away with me was the need for reflection.... Reflection, reflection! It has taught me to take the time to stop and think, so that when something happens, I need to process and not just default, go to the typical reaction..."
- "Reflection is a huge piece of this program. I think as educators we often go, go, go and we don't stop to take the time to think about what was happening. Leadership requires that reflection and the program taught you that..."

Another significant piece of the PRN program was the immersion in the leadership standards, which participants acknowledged as an important element in their learning process:

- "...getting really grounded in the leadership standards and the true meaning behind those standards, impacted everything you did in school..."
- "Focusing on the standards in this program really grounded me, really made me pay attention to what was critical and important in my role as a leader"

Participants discussed the value of the vision paper assignment, which they prepared at the beginning of the PRN process:

- "Early in the program you write down your vision in a paper, and when you look at the guidelines, and you try to outline your vision you say 'huh?, what?', but then you get it down on paper and you look at your final product and you say ... Wow!"
- "My vision paper was different, I think I came with a set of assumptions... this is what I felt education was about. But I was looking through the eyes of a parent, and after I had gone through the PRN, had the experience, done the research, had the discussions, I looked at what I wrote and... oh, my gosh! My vision was so different than what I initially thought and I realized that I had grown up!"

Another important component was the experience of the cohort as a learning community:

- "I remember thinking at the time, when we were going through the exhibitions and getting our portfolios ready, that there was wonderful value in seeing this all together... and I was dying for the opportunity to have time one day when we would all meet and just sit around a table and talk about the material we shared and learned from..."
- "The professional learning communities that formed in our peer group and then going back to school during that year, trying to apply what we learned... it was significant"

The overarching sentiments, however, were expressed in how hard the work was and how gratifying the program experience was for each individual:

- "I came into this program saying to myself, 'how hard can it be?', but ...its complete immersion! Focused hard work!"
- "For me, it was the structure of the program, the projects, the way we would read something and reflect on it, and have a concentrated amount of time to apply those concepts... and it was through the application that you could see the big picture. The learning-by-doing had the biggest impact on me and that came from the structure of the program."

• "What happens to you during the process is that you look back and think about the various barriers and you realize that the program helped you get through it..."

Participants indicated a high level of satisfaction with the design of the program, directed towards building capacity for 'leading for equity'; their perceptions of the value of this program was viewed as integral to their satisfaction with their experience, overall. As one participant summed it up, "I did not know what to expect, and I was so quickly moved into the program... but once I got over the 'shock', I felt so empowered when I came back out!"

Theme #4 A Special Kinship and Built-in Empathy: Cohort Interactions and Experiences. Participants were not haphazard in their allotment of time; they quickly learned that time management was an essential ingredient to their success, both academically and professionally. Part of that management was linked with their cohort relationships, the ways in which they shared the experience and worked together. Many found that their peer-to-peer interactions formed the basis for their satisfaction with the experience, finding empathy and camaraderie in each other; the findings here suggest that these individuals intuitively set aside time for interactions with each other. As mentioned earlier, participants identified the cohort experience as connected to the development of a professional learning community, a special network of colleagues:

- "We had a very close cohort, you gain such a kinship ... it's like going through the birth of your children and its intensive... you laugh, you cry, together you support one another and it is all encompassing.... And then it is done! You intend to stay connected, but it is so hard... I miss them all!"
- "We all came from such different places, and I crave that comradeship and I went to the Equity Institute last year just to connect with people again and feel that same feeling..."
- "Having the close cohort connection was like built-in empathy..."

As one participant indicated, while others agreed, the transition of classmates to colleagues to friends during the program was a meaningful benefit. As she noted, "...I might want somebody to talk to as I move ahead, and we all had each other to share things with... I remember [the program director] coaching us to do that, once you leave here, seek each other or a group that is going to help you down the road, problem solving and seeking advice..."

Theme #5 Strengthening a Strong Program: Recommendations for Program Modifications and Improvements. Participants were quick to praise the program and their experiences; suggestions and recommendations were provided in the context of how to strengthen an already strong and vibrant program. As one participant stated, "...there are so many PRN graduates, there's a voice, a strong voice, and collectively we should be able to support the program going forward and provide a network for [the program director] and the program development...".

Specific program recommendations included the following ideas:

- Screening process for mentors
- Multiple mentors to broaden participants' experience
- PRN grads as mentors for PRN students
- Support group after graduation
- Alumni network expanded
- Ongoing professional development
- Networking opportunities for graduates

Finally, there was consensus around the sentiment that the PRN had been more than an educational experience for participants; it had been transformational. Participants expressed a range of emotions regarding their overall PRN experience:

- "When you are immersed in the program we would cry together or complain and ask why we had to do something, and then... you look back and you make those benchmarks and achieve those accomplishments and you say Oh!! Now I get it, now I know why we did that ... Trust the program! It's rigorous but so valuable..."
- "The process, for me, was truly transformational. I think it is just so moving when you are going through something where you have to stand up in front of your colleagues and state what you believe... and I started to cry and could not stop crying... actually, it was part of the transformation, the growing, being really honest about what you believe. It brought it all together for me!"
- "It was a wonderful experience, really life transforming! I think even career transforming, for me, and yeah... the integrity of the program is solid but there are always things that can be improved. But I am very, very proud to be a graduate of the PRN and I look to [the program director] and the way she structured it and the way she ran it, with all her pressures, and she did an exceptional job!"

CONCLUSIONS AND RECOMMENDATIONS

A Strong Program

The results from Phase I of the study demonstrate that the program is achieving strong results in regards to participant performance, growth, completion, and attainment of post-graduate leadership roles. Further, the survey results indicate that participants feel that nearly all program experiences had a considerable or great impact on their ability to lead change, and this has been relatively consistent over the 12 years of implementation. Phase II results from the focus group concur with the Phase I results that suggest the program is high quality. While focus group participants offered suggestions for improvement of the program, many of the comments and themes reflect that the overall perception was that the program was highly effective in preparing them for their leadership roles.

Interconnected and Coherent Equity-Focused Program

The focus group findings revealed that the structure of the program, combined with the residency experience, provide a comprehensive and transformational experience for participants. As one participant said, "It was a wonderful experience, really life transforming...even career transforming." The degree to which graduates rated the PRN experiences all fairly high on the *PRN Graduate Survey* also indicates that they feel the structure, curriculum, and pedagogy of the program are interconnected and provide a coherent learning process. Results suggest that participants recognized that a major focus of the program is on preparing equity-oriented leaders. Further, focus group participants did not see this focus as isolated or discrete, rather it was deeply integrated into all their learning experiences.

Mentoring

A cornerstone of the program is the intensive residency experience with a mentor. This can be seen in how high both of these experiences are rated in the *PRN Graduate Survey* results. The intensity of the experience and the relationship lead to powerful learning, and can lead to challenges. The written mentor feedback identified enriching experiences, like the professional development with the cohort and the learning plan, and the challenges they faced, mostly around time and a sense of community with the group. Focus group participants offered specific and practical suggestions for program modifications to improve the mentoring component. Additional study by the PRN in these areas is strongly suggested, particularly regarding the idea of using multiple mentors and using PRN graduates as possible mentors.

Cycle of Inquiry and Modeling

The Theory of Action/Evaluation Framework designed at the onset of the study was used to develop an ongoing cycle of inquiry to improve the PRN program. PRN staff used the data collected to measure the Enabling Outcomes at the mid-point of the year to make mid-course corrections and at the end of the year to make improvements for the 2012/13 school year. The PRN staff also compiled the data from this evaluation into a data dashboard that was presented to the Center for Leadership and Educational Equity (CLEE) Board of Directors as a tool to track progress of the PRN toward achieving the outcomes described in the TOA/Evaluation Framework. This process will happen each year as new data is available so that trends can be analyzed and so that the CLEE Board can use the data to inform decisions around providing resources and seeking funding. Continuing the cycle of inquiry using the TOA/Evaluation Framework developed in this study will be essential in order to monitor important outcomes and to improve the PRN.

There is evidence from the mentors' written feedback and the graduates' focus group results that participants have found multiple ways to use learning experiences modeled by PRN staff back in their school communities. The use of an ongoing cycle of inquiry designed through this study can be shared with participants as a way to model this important leadership practice to move an organization further toward a compelling vision of success and achievement.

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