Assistant Principals' Perceptions of the Principalship

Thomas Lee Morgan, *University of Northern Colorado*

Abstract

Education research has established a significant relationship between school leadership and students' achievement. This study considers the leadership self-efficacy and practice of assistant principals (AP) in public schools in the domains of facilitating a supportive and collaborative learning environment, instructional leadership, school improvement, management, and family and community relations, as perceived by APs' self-reports. The findings of this study suggest that, in addition to APs' strengths in the domain of facilitating a collaborative learning environment and efficacy around family and community engagement, there were explicit gaps in the instructional leadership and school improvement practices of APs that need to be addressed. The study also confirmed that there continue to be a proliferation of duties and a lack of a consistent set of practices for APs.

Keywords School leadership; Self-efficacy; Practice; Assistant principal; ANOVA

Introduction

School improvement and educational reform rely on a significant contribution of leadership to the organizational structure of the school. Although the influence of school leadership is largely indirect, it accounts for as much as a quarter of the difference in the achievement of students at a particular school (Clifford, Behrstock-Sherratt, & Fetters, 2012). School leaders are expected to increase a schools' organizational capacity in order to prepare students to be college and career ready

by developing twenty-first-century skills. The leader is also responsible for ensuring that the school's educational program produces equitable outcomes for all students. Accordingly, the concept of a principal is no longer one of an educational manager but rather a transformational leader that creates change in the current educational system (Leithwood, Louis, Anderson, & Wahlstrom, 2004).

Increasingly, the school leader is accountable for the learning and achievements of all students, which encourages the school leader to attempt to become a "super-principal" (Pierce, 2000, p. 1). In a post-heroic leadership era, many principals have enacted aspects of distributed leadership in order to make the role more sustainable (Pounder & Crow, 2005). Although this distribution of leadership inherently includes the assistant principal (AP), the distributed components are often isolated and leave the AP ill prepared to assume the role of principal (Darling-Hammond, LaPointe, Meyerson, Orr, & Cohen, 2007). This phenomenon further exacerbates the increasing shortage of qualified applicants to fulfill upcoming vacancies (Bloom & Krovetz, 2001; Burdette & Schertzer, 2005; Fenwick & Pierce, 2001; Johnson-Taylor & Martin, 2007). With a growing shortage of principal candidates, there is an urgency to construct an infrastructure that supports the development of capable leadership.

In the current system, the majority of leaders serve as the AP of a school before assuming the principalship (Kwan & Walker, 2011; Pounder & Crow, 2005). As part of the school leadership team, an effective AP directly impacts instructional improvement (Fullan, 2003; Halverson & Plecki, 2015; Sergiovanni, 2001). While the leadership of the AP is essential to the success of a school, little is known about the substance of the AP role (Melton, Mallory, Mays, & Chance, 2011). The nature of AP leadership is a significant area of educational leadership that has historically been underrepresented in the literature, and it is "one of the *least researched* and *least discussed* topics in educational leadership" (Weller & Weller, 2002, p. xiii). Within the context of educational leadership, it is only recently that there has been an attempt to characterize the role of the AP and question the associated activities (Kwan & Walker, 2011; Read, 2011).

The purpose of this study is to explore and determine what the relationship is between the efficacy of the profession, the efficacy of the professional in the role, and the extent of practice for APs, as well as to investigate if there is a distinction based on the efficacy of the profession and contextual factors. Additionally, the research seeks to document the variance in the self-efficacy and the practice of APs. In order to achieve those objectives, this quantitative investigation presents answers to the following research questions:

1. How do APs' self-reports of self-efficacy correlate to the extent of the practice of school leadership?

2. What are the differences among APs' self-efficacy and practice based on the efficacy of the profession?

3. What are the differences among APs' self-efficacy and practice based on contextual factors?

Background

This study about APs' perceptions of the principalship and how these perceptions affect their efficacy and practice builds upon relevant literature about the role of the AP, as well as upon literature about self-efficacy. For the purpose of this research, an AP is considered a school-based administrator who reports to the principal, whose job responsibilities are to aid the principal in the planning, implementation, monitoring, and assessment of the strategic direction of the school. Depending on the region or country of origin, several other terms may be used in reference to a person fulfilling the same role: vice principal, administrative assistant, deputy head, deputy principal, associate principal, or assistant to the principal. These terms are used interchangeably throughout the article.

The role of the AP

Several researchers have attempted to codify the work of the AP. One of the first attempts was by David Austin and Harry Brown (1970), who categorized 29 responsibilities. Since then, researchers have categorized AP responsibilities into as few as seven areas to as many as 33 (Garret & McGeachie, 1999; Pellicer, Anderson, Keef, Kelley, & McCleary, 1988). More recently, Catherine Marshall and Richard M. Hooley (2006) grouped the responsibilities of an AP into four categories: conferencing with students and parents; handling behavior problems; developing the master schedule, registration, and attendance; and counseling students. Vicki Petzko (2008) found 18 categories for AP responsibilities with personnel, educational leadership, special programs, and human relations being at the top of the list for the position in both high schools and middle schools. Paula Kwan (2009) grouped the responsibilities into eight dimensions: external communication and connection; quality assurance and accountability; teaching; learning and curriculum; staff management; resource management; leader and teacher growth and development; and strategic direction and policy environment. This list is very similar to the list developed by Charles Hausman, Ava Nebeker, Jason McCreary, and Gordon Donaldson (2002). Anna Sun (2011) grouped AP responsibilities into 25 areas, including instructional leadership; teacher evaluation; student discipline; administrative duties (paperwork); formulating goals; curriculum development; teacher training; staff development (in service); counseling pupils; and teacher selection. Ashely Oleszewski, Alan Shoho, and Bruce Barnett (2012) found that the most consistent duties that APs engaged in on a regular basis included student management, instructional leadership, and personnel management.

Early empirical research from Zita Cantwell (1993) reported that socialization and the lack of professional development inhibit the redistribution of AP responsibilities to a more ideal state. This was further corroborated by the findings of Norma Mertz (2006), who found that APs were learning by lived experiences based on the duties assigned by the principal. Additionally, preparation programs and professional development focus on the principalship and not on the particulars of becoming or being an AP (Kwan, 2009). The consequence is that AP socialization is informal, random, and variable (Oleszewski, Shoho, & Barnett, 2012). Bruce Barnett, Alan Shoho, and Ashley Oleszewski (2012) claimed that there is very little difference in respon-

sibilities of novice and experienced APs, which indicates that the current manner of socialization is not working.

The AP's role suffers from an inadequate job description and ambiguously defined practice in terms of the position itself and the skills required to do it. Currently, it is rare that an AP has measurable outcomes to guide the daily work (Marshall & Hooley, 2006). Additionally, the variety of roles and responsibilities placed on APs is predominantly unknown to those the assistant principal contacts on a daily basis (Hartzell, 1995). These conditions result in a culture in which APs are often ignored and slandered in the course of their work (Marshall & Hooley, 2006). With the scope of the job being primarily defined by the principal (Armstrong, 2009; Barnett, Shoho, & Oleszewski, 2012; Weller & Weller, 2002), there is a greater risk of the position being ineffective.

Role conflict occurs when people attempt to balance the incompatible expectations of their position. One example of role conflict occurs "when the immediate demands of the school interfere with doing the work they value as an expression of their professionalism" (Marshall & Hooley, 2006, p. 8). John Lee, Paula Kwan, and Allan Walker (2009) found, for example, that assistant principals experience a discrepancy between what they feel is important and what they actually do on a daily basis. Assistant principals generally spend the majority of their time with administrative tasks, custodial duties, and discipline, leaving little time for instructional leadership (Glanz, 2004). Assistant principals also experience role conflict in balancing the demands of the job and the demands of their personal lives (Eckman & Kelber, 2010) and find the lack of balance in the lives of principals a detractor to their desire to pursue the principalship (Pounder & Merrill, 2001).

Furthermore, the relevant literature on the preparation and training for APs demonstrates that there are gaps in the current support structures that are in place to encourage them to be effective in their position or prepared to assume other leadership roles (Armstrong, 2009; Barnett, Shoho, & Oleszewski, 2012; Darling-Hammond et al., 2007; Hausman et al., 2002). This perspective of the role of the AP gives credence to the existing wide variance in the position and its habitual state of uncertainty. In its present iteration, the position is filled with role ambiguity and role conflict, leading to widespread dissatisfaction with the status quo and further exacerbating the shortage of principals in the pipeline (Armstrong, 2009).

Self-efficacy

Self-efficacy is a significant factor in Albert Bandura's social cognitive theory, which emphasizes the evolvement and exercise of human agency (Bandura 1977, 1986, 1997). Human agency is the idea that people can exert some control over what they do (Bandura 1977, 1986, 1997). Therefore, people are thought to be self-organizing, proactive, self-reflective, and self-regulated. Because people are involved in their own development, the way they think, believe, and feel construct some guidelines for their behavior (Bandura, 2008).

Self-efficacy "refers to perceptions of capabilities for performance within a given situation, activity, or domain" (Cervone & Scott, 1995, p. 360). Having a high level of self-efficacy is important to school leadership, as it is related to the way leaders

think and behave in schools (Petridou, Nicolaidou, & Williams, 2014). John McCullers and William Bozeman (2010) found that leaders with higher levels of self-efficacy had a stronger belief in their ability to achieve school and district goals. Additionally, Albert Bandura (2009) emphasized that "when faced with obstacles, setbacks, and failures, those who doubt about their capabilities slacken their efforts, give up, or settle for mediocre solutions; those who have a strong belief in their capabilities redouble their efforts to master the challenge" (p. 120). Therefore, self-efficacy is a determinant of a person's ability to persist in an endeavor. Additionally, it has the ability to rule whether a person will view a difficult challenge as an opportunity or as a threat (Bandura 1994, 1997).

Most of the empirical studies that have investigated the self-efficacy of school leaders are based on Bandura's definition. A further examination of research about efficacy indicates that there are two aspects of self-efficacy: the self-efficacy of the profession and the self-efficacy of the professional (Guskey & Passaro, 1994). The self-efficacy of the profession refers to a person's belief about the ability of the profession to accomplish its stated goals. On the other hand, the self-efficacy of the professional refers to people's belief about their own ability to execute the responsibilities that their profession demands. For example, an AP's belief or attitude that the principalship has the ability to enact change is different from a leader's belief that they themselves are able to enact the change that is needed. These two aspects comprise a complex but more holistic view of self-efficacy.

Research continues to establish the link between self-efficacy and individual and group performance. Although there are some studies that found a negative effect (Bandura & Jourden, 1991; Vancouver, Thompson, & Williams, 2001), the majority of the literature supports a positive consequence from high levels of self-efficacy (Sitzmann & Ely, 2011; Stajkovic & Lee, 2001). Furthermore, self-efficacy is important in that it corresponds to performance because of its influence on both the activities that are pursued and the level of persistence in executing the activities (Bandura, 1997; Yeo & Neal, 2006). The meta-analysis of Alex Stajkovic and Fred Luthans (1998) found that self-efficacy has been shown to increase performance by 28 percent, which is a stronger effect than goal setting (10.39%), feedback interventions (13.6%), or behavior modifications (17%).

Given that past behavior is one of the strongest predictors of future behavior (Ouellette & Wood, 1998), it stands to reason that an assistant principal that demonstrates the proclivity to engage in more difficult tasks and put in more effort and persist longer will have a greater impact in the role and be better prepared to assume the role of the principalship. The present study aims to contribute to the knowledge about the relationship between self-efficacy and performance by examining whether there is a connection between the self-efficacy of the person in the role of the assistant principal and the self-efficacy of the profession itself. It is expected that:

1. Self-efficacy has a positive impact on the practice of school leadership.

2. There is a significant difference in the extent of the efficacy of the professional and the practice of school leadership based on the assistant principal's perception toward the efficacy of the profession.

3. Contextual factors moderate the practice of school leadership within the role of the assistant principal.

Methodology

Respondents

The sample for this study was obtained from the considered target population: individuals serving as APs in public schools in a western state. When the sample was taken, the representative district served the largest number of students in the state and had the greatest percentage of economically disadvantaged students for a district of its size. The percentage of non-white students in this district was significantly higher than the average of the state population. The target population included a closed group of 220 full-time APs, principal residents, administrative interns, and administrative assistants. Only respondents that completed at least 90 percent of the survey items were included in the study. Therefore, an overall *n* of 120 of cases was established, which accounts for a response rate of 54.5 percent. Since most types of schools were well represented among the respondents, it is considered that the findings provide a general depiction of the leadership self-efficacy and practice of APs. A summary profile of the respondents is given in Table 1.

Table 1. Descriptive statistics of respondents

	Gender	Male	Female		
		37.2 (48)*	62.8 (76)		
	Qualifications	Bachelor's	Master's	Specialist	Doctorate
		2.5 (3)	76.0 (92)	19.0 (23)	2.5 (3)
	School level	Elementary	Middle	High	
		39.7 (48)	17.4 (21)	43.0 (52)	
School variables		0–25%	26–50%	51–76%	76–100%
	Non-white student enrollment	4.1 (5)	9.1 (11)	16.5 (20)	70.3 (85)
	Free/reduced-lunch-eligible enrollment	5.0 (6)	7.4 (9)	18.2 (22)	68.4 (83)
	English-language-learning enrollment	23.9 (29)	30.6 (37)	31.4 (38)	13.2 (16)

* Results are presented as percentages and as absolute counts (in parentheses). Some respondents chose not to provide an answer to certain questions, which accounts for differences in the overall numbers.

Instrument

This study employs a quantitative approach using a survey designed for leadership-preparation programs to gather feedback from program graduates (Kottkamp, 2011; Orr, 2011; Orr & Orphanos, 2011; Orr, Jackson, & Rorrer, 2009; Pounder, 2011, 2012). This survey was initially developed and jointly sponsored by the University Council for Educational Administration (UCEA) and the Learning and Teaching in

Educational Leadership (LTEL) Special Interest Group (SIG) of the American Educational Research Association (AERA).

The author of the present article modified the Leader in Practice Edition of the Initiative for Systemic Program Improvement through Research in Educational Leadership (INSPIRE-LP) in collaboration with the UCEA Center for the Evaluation of Educational Leadership Preparation and Practice. The original survey asked leaders to rate their efficacy regarding the five domains of leadership organizational school culture (OSC), instructional leadership (IL), school improvement (SI), management (MAN), and family and community relations (FCR), which gave information about perceived self-efficacy. The current survey asks leaders to additionally rate the amount of time they spend on each of the domains, which gives information on the level of practice. These modifications were made to allow the researcher to investigate respondents' perceptions of the principalship, as well as their efficacy at facilitating school leadership practices. It also allows participants to rate the extent to which correlating mediators, such as district support, teacher collaboration, and student engagement were present in their schools.

The questionnaire consisted of 32 questions organized into five sections. In section one, four respondent characteristics were measured, including gender, minority, generation, and years of professional experience. In section two, six school characteristics were measured, including grades served, student enrollment, student-diversity levels, student outcomes, school-proficiency rating, and teacher characteristics.

In section three, a measure of positive and negative beliefs about the principalship was measured as a construct of the efficacy of the profession. A measure of three positive beliefs about the principalship was based on a 5-point Likert-type agreement scale (1 = strongly disagree, 2 = disagree, 3 = mixed, 4 =agree, 5 = strongly agree). The measure of three negative beliefs was based on a similar rating scale. The positive and negative beliefs represented ideas and values concerning the efficacy of the profession, such as the potential of leadership to improve education.

In section four, school-leadership practices were measured within five domains including organizational school culture (OSC) (9 questions), instructional leadership (IL) (5 questions), school improvement (SI) (6 questions), management (MAN) (4 questions), and family and community relations (FCR) (4 questions). Each of the domains was aggregated to provide a scale score for self-efficacy and practice. The measure of self-efficacy was based on a 5-point Likert-type agreement scale (1 = strongly disagree, 2 = disagree, 3 = mixed, 4 = agree, 5 = strongly agree) about each of the five domains of school leadership. A measure of the rate at which the APs engaged in each of the leadership domains, based on a 4-point Likert-type scale (1 = never, 2 = twice a month, 3 = twice a week, 4 = daily), was collected to determine the level of practice in each of the five domains.

In section five, a measure of learning and teaching conditions was based on a 5-point Likert-type scale (1 = strongly disagree, 2 = disagree, 3 = mixed, 4 = agree, 5 = strongly agree) that asked respondents to indicate their agreement with the extent a particular indicator is present at their school. The section on teaching and learning conditions included the subsections of school improvement, student engagement, family engagement, teacher collaboration, shared problem-solving, collective efficacy, and district support.

Data analysis

First, data were analyzed using descriptive statistics (standard deviations and frequencies). For the missing values, median substitution technique was used because of Likert-type responses. A mean imputation procedure was used in which values were imputed if participants responded to at least 90 percent of the items. These imputed values were based on participants' responses to the completed items. In order to detect univariate outliers, Z scores were obtained and tested for each variable. Outliers were removed for analysis within each variable. Based on the data and social desirability bias, it was determined that respondents that answered strongly disagree, disagree, and undecided where outliers. As a result, comparisons around beliefs about the principalship were made based on respondents being clustered into the "strongly agree" and "agree" categories.

Second, paired t-tests and chi-square tests were done to determine the statistical significance of the differences between the means of the APs' responses. When there were more than two categories in the dependent variable, one-way analysis of variance (ANOVA) was used to eliminate the need for calculating three or more separate t-tests and guard against Type I error. This study used the criterion of 95 percent confidence level ($p < .05$) to determine statistical significance, which is common practice in educational research (Lomax & Hahs-Vaughn, 2012).

The analysis of the data was concerned with confirming the validity of the five domains that were used to report on the self-efficacy and practice of APs. The Cronbach's alpha of the five domains of organizational school culture, instructional leadership, school improvement, management, and family and community relations were assessed to determine internal consistency. As shown in Table 2, most of the reliability alphas were within a satisfactory range (0.591–0.881), with the exception of the practice alpha for management.

**Table 2. Reliability alphas and scale means of the five domains
of self-efficacy and practice**

	Reliability alpha		Scale mean	
	Self-efficacy	Practice	Self-efficacy	Practice
Organizational school culture	.825	.808	3.40	3.19
Instructional leadership	.884	.850	3.32	2.62
School improvement	.851	.813	3.24	2.70
Management	.811	.558	3.35	3.04
Family community relations	.875	.822	3.42	3.01

Limitations

This study was designed to minimize the possibility of erroneous conclusions. However, as with any type of descriptive research, certain limitations were present. First, this study was conducted using a sample of assistant principals in one urban

district; therefore the results may not be applicable to assistant principals serving in varying urban, suburban, and rural contexts. A second limitation was the collection of the data. The data were collected using a confidential electronic survey where participation was voluntary and responses were self-reported. Some respondents may have been concerned about the confidentiality of the information and may have chosen to refrain from participation. Concerns about confidentiality could also lead to social-desirability bias, which could influence the data.

Finally, a third limitation of the study is related to the survey instrument. The INSPIRE Leadership)——Leader in Practice survey instrument was developed for the purpose of facilitating program assessment, accreditation, and program improvement to provide a source of evidence on program outcomes. This is the first time that this survey was used to inquire about the leadership practices of assistant principals. The items on the survey were broadly constructed and included several double-barreled questions, possibly resulting in inaccurate measurements. The whole instrument was found to be very reliable ($\alpha = .94$). The reliability coefficients for all of the capacity domains were in the acceptable range ($\alpha = .79$ and above). The management-practice domain was not found to be highly reliable ($\alpha = .59$). The other four subscales for practice were found to be highly reliable ($\alpha = .80$ and above).

Results

The objective of this study was to identify if there was any relationship between the leadership self-efficacy and practice of APs, as well as to assess the differences based on the efficacy of the profession. The following paragraphs discuss the findings of this study regarding these three research questions.

Relationship between self-efficacy and practice

This study was designed to assess how APs' self-reports of self-efficacy correlate to the extent of the practice of school leadership. Five aggregated multidimensional domains and 28 competencies of self-efficacy and practice indicators of school leadership were measured. Pearson's product-moment correlation coefficients (denoted by r) and their corresponding p-values were calculated to assess the strength and signification of the relationship between the self-efficacy and practice of APs. Jacob Cohen's (1988) conventions were used to interpret effect sizes of correlations.

The results presented in Table 3 show that all correlations between self-efficacy and practice were moderately significant at the domain level. Instructional leadership was the domain with the strongest correlation, which confirms the relationship between self-efficacy and practice in this domain. There were also strong correlations within the practice competencies of instructional leadership. Assistant principals who spent more time supporting differentiated instruction also spent more time supporting professional development. Additionally, APs who spent more time differentiating instruction also spent more time providing constructive feedback to teachers to improve instruction.

Table 3. Correlation analysis between school leadership self-efficacy and practice

	Pearson correlation	Sig. (2-tailed)	N
Organizational School Culture (OSC)	.408	.001	121
Promote effectiveness in serving all students well	.320	.001	121
Build a collaborative environment	.393	.001	121
Foster staff sensitivity to student diversity	.432	.001	121
Work with staff to solve school or department problems	.341	.001	121
Build and sustain an educational vision for a school	.272	.003	121
Use clear ethical principles to guide decision-making and problem-solving	.327	.001	121
Encourage staff members' initiative and innovative efforts	.429	.001	121
Engage staff in comprehensive planning for school improvement	.389	.001	121
Facilitate shared leadership	.530	.001	121
Instructional Leadership (IL)	.479	.001	121
Work with teachers to change content and instructional methods if students are not doing well	.518	.001	121
Provide constructive feedback for teachers to improve instruction	.371	.001	121
Support differentiated instruction to enhance student learning	.501	.001	121
Support professional development activities for teachers	.406	.001	121
Align professional development activities for teachers based on identified instructional needs	.434	.001	121
School Improvement (SI)	.477	.001	121
Create a coherent educational program across the school	.437	.001	121
Promote a curriculum that supports college and career readiness	.552	.001	121
Evaluate curriculum for its use and effectiveness	.468	.001	121
Redesign the school's organization to enhance teaching and learning	.517	.001	121
Establish high expectations for student learning	.466	.001	121
Use school or district data to measure school progress	.476	.001	121
Management (MAN)	.474	.001	121
Manage school resources effectively and efficiently	.440	.001	121
Manage discipline effectively	.439	.001	121
Manage facilities and their maintenance to promote a safe and orderly learning environment	.529	.001	121
Recruit, hire, and retain high-quality personnel	.307	.001	120

Table 3 (continued)

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	Pearson correlation	Sig. (2-tailed)	N
Family & Community Relations (FCR)	.359	.001	121
Build and sustain positive relationships with families and caregivers	.237	.009	121
Communicate effectively with families and caregivers	.362	.001	121
Build and sustain positive relationships with community partners	.418	.001	121
Communicate effectively with community partners	.334	.001	121

A further investigation of the 28 competencies revealed that there were five strong correlations between self-efficacy and practice. These strong correlations were between self-efficacy and the practice of facilitating shared leadership $r(121) = .53$, $p < .001$; working with teachers to change content and instructional methods if students were not doing well $r(121) = .52$, $p < .001$; supporting differentiated instruction to enhance students' learning $r(121) = .50$, $p < .001$; promoting a curriculum that supports admissions into college and readiness to pursue a career $r(121) = .55$, $p < .001$; redesigning the school's organization to enhance teaching and learning $r(121) = .52$, $p < .001$; and managing facilities and their maintenance to promote a safe and orderly learning environment $r(121) = .53$, $p < .001$.

While there was a lack of consistently strong correlations between self-efficacy and practice within the competencies, there was a greater amount of strong relationships within groups of practices and within groups of self-efficacies. For example, the practice of encouraging staff members' initiative and innovative efforts was highly correlated with the practice of engaging staff in comprehensive planning for school improvement $r(121) = .53$, $p < .001$ and with the practice of facilitating shared leadership $r(121) = .51$, $p < .001$. Similarly, there were strong correlations between the self-efficacy required to work with teachers to change content and instructional methods and the self-efficacy to provide constructive feedback $r(121) = .73$, $p < .001$, to support differentiated instruction $r(121) = .70$, $p < .001$, to support professional development activities $r(121) = .52$, $p < .001$, and to align professional-development activities based on identified instructional needs $r(121) = .53$, $p < .001$.

The efficacy of the profession

Respondents were asked to assess their confidence in the efficacy of the profession of the principalship by expressing their agreement with beliefs about the principalship. A t-test was the main unit of analysis employed to determine if there were significant mean difference between the groups the levels of self-efficacy and practice based on the APs beliefs about the efficacy of the profession of the principalship. The majority of the answers to the positively worded questions around principal belief were in the strongly agree and agree categories. Given the nature of the questions, there is an expectation of acquiescence and social desirability. As a result, the very few responses in the negative or neutral categories were determined to be as outliers and dropped from the analysis as they did not change the results.

Assistant principals who reported the highest level of efficacy for the profession also reported higher levels of practice in several domains of leadership. Those who strongly agreed that the principalship can make a difference in the staff and students' lives reported a significantly higher frequency in the practice of school-improvement efforts ($t(119) = 2.793$, $p = .001$). To examine whether groups' differences were based on the competencies of practices, a chi-square was separately calculated. The "strongly agree" group reported higher frequency in the practices of promoting effectiveness in serving all students well ($X^2 (4) = 21.22$, $p = .002$); aligning professional-development activities for teachers based on identified instructional needs ($X^2 (4) = 10.84$, $p = .028$); promoting a curriculum that supports college and career readiness ($X^2 (4) = 10.46$, $p = .033$); evaluating curriculum for its use and effectiveness ($X^2 (4) = 25.39$, $p = .001$); redesigning the school's organization to enhance teaching and learning ($X^2 (4) = 20.89$, $p = .004$); managing school resources effectively and efficiently ($X^2 (4) = 9.96$, $p = .041$); and communicating effectively with community partners ($X^2 (4) = 14.01$, $p = .030$).

Additionally, those who strongly agreed that the principalship provides opportunities for their own professional growth reported significantly more frequent practice in the domains of instructional leadership ($t(119) = 2.158$, $p = .033$) and school improvement ($t(119) = 3.636$, $p < .00$). They also reported greater frequency of practice in the instructional leadership competency of supporting differentiated instruction to enhance student learning of management ($X^2 (4) = 11.59$, $p = .041$) and the school improvement competency of creating a coherent educational program across the school ($X^2 (4) = 18.57$, $p = .017$). Those who strongly agreed that the principalship enabled them to influence school change reported significantly more frequent practice in the domains of school improvement ($t(119) = 3.014$, $p = .003$) and management ($t(119) = 2.096$, $p = .038$).

Contextual factors affecting self-efficacy and practice

Respondents were asked to identify contextual factors about their school settings. The present study investigated non-white students' enrollment, students' socio-economic status proportions, English-language learning proportions, and the school's professional culture as indicators of the context of practice. In order to test the effect of contextual factors on the self-efficacy and practice of APs, independent sample ANOVAs, with their respective F-statistic and corresponding p-values, were conducted doing planned post hoc tests when appropriate. Factors relating to students did not elicit consistent differences in self-efficacy and practice at the domain or competency level. When investigating practices regarding family and community relations, an omnibus test for non-white students' enrollment, $F(3, 116) = 2.712$, $p = .048$, $\eta^2 = .066$ and free- and reduced-lunch-eligibility rates, $F(3, 115) = 3.015$, $p = .033$, $\eta^2 = .073$ were statistically significant. For both contextual factors, planned contrast revealed that APs serving in schools with 10–25 percent and 76–100 percent free- and reduced-lunch-eligible students spent significantly less time engaging in the practice of family and community relations than the groups with rates of 26–50 percent and 51–75 percent. English-language learner enrollment did not account for significant differences by domain or competency.

The indicator of professional culture was based on the composite mean score for the indicators of teacher collaboration, shared problem-solving, and collective professional self-efficacy. The professional culture scores were compared regarding high, medium, and low levels. The omnibus test for the domain of self-efficacy was statistically significant, $F(2, 119) = 13.76, p = .001 , \eta^2 = .118$. Post hoc Scheffé tests revealed that the "high" group ($M = 4.84, SD = .40$) reported higher levels of organizational school culture self-efficacy than the "medium" ($M = 4.18, SD = .38$) or "low" groups ($M = 3.85, SD = .41$). The omnibus test for the domain of practice was statistically significant, $F(2, 119) = 13.76, p = .001 , \eta^2 = .118$.

The "high" group reported higher self-efficacy in 13 competencies and a higher frequency in practice in six competencies. When differences were found, those reporting the highest levels of engagement also reported significantly higher levels of self-efficacy and practice than those in the "medium" group or the "low" group did in the family and community engagement competencies. Higher levels of students and family engagement were also related to greater self-efficacy in the competencies of promoting a college- and career-readiness curriculum, facilitating shared leadership, fostering staff sensitivity to students' diversity, building a collaborative environment, engaging staff in comprehensive planning for school improvement, and managing school resources effectively and efficiently. Higher levels were also related to higher engagement in the practice of fostering staff sensitivity to students' diversity and the alignment of professional development based on identified students' needs.

Significant differences were found in the self-efficacy and practice of APs based on indicators of professional culture. When differences were found, those reporting the highest levels of professional culture also reported significantly higher levels of self-efficacy and practice than those in the mid-level group or the low-level group. The "high" professional practice group reported a significantly higher level of self-efficacy in all competencies, with the exception of organizational school culture. Additionally, the "high" group used clear ethical principles more frequently to guide decision-making and problem-solving, and this group encouraged staff members' initiative and innovative efforts more frequently than the "mid" or "low" groups. The "high" group also engaged in instructional leadership practices at a greater frequency than the "mid" and "low" groups and spent more time changing content and instructional methods when students were not doing well, supporting differentiated instruction, supporting professional-development activities for teachers, and aligning professional development based on the needs of identified students. The "high" professional culture group reported higher self-efficacy for the school improvement competencies of creating a coherent educational program, promoting a college- and career-readiness curriculum, and establishing high expectations. This group reported higher self-efficacy to manage discipline effectively and recruit, hire, and maintain high-quality personnel.

Discussion

The overall aim of the present research was to determine the relationship between leadership self-efficacy and practice. Furthermore, the research was looking to determine if there were distinctions in levels of self-efficacy and practice based on be-

liefs about the principalship and contextual factors. Overall, the results suggest that self-efficacy is moderately related to practice and that belief about the principalship does make a difference in the levels of self-efficacy and practice.

Assistant principals' reports of self-efficacy and practice in the domains of school leadership were moderately and positively correlated with all domains of school leadership. The connection between the two affirms the work of Albert Bandura (1977) and others in the area of self-efficacy as it relates to the work of assistant principals. For example, those who engaged in the practice of encouraging staff members' initiative and innovative efforts were more likely to practice building a collaborative environment and engage in facilitating shared leadership. Additionally, encouraging initiative and innovation was also positively correlated with all the competencies of the instructional leadership domain, three of the competencies of the school improvement domain, two competencies of the management domain, and all the competencies of community relationships.

Given the fact that significant and important relationships between the domains of school leadership were found, it is important to consider how to increase practice and self-efficacy with the implication that schools that do so will increase the effectiveness of the assistant principal. From the perspective of social cognitive theory, the three areas of self-efficacy, practice, and context have reciprocal influences on each other (Stajkovic & Luthans, 2003), which suggests that an increase in one will result in a bidirectional impact on the other two, but not at symmetrical levels.

It is important to note that the data did not indicate consistently strong correlations between self-efficacy and practice, suggesting that APs were not engaging in leadership based on their perceived areas of strength in many of the competencies. For example, a higher level of self-efficacy in building and sustaining an educational vision does not correlate to higher levels of engagement in practice or vice versa. Although APs may spend greater amounts of time building and sustaining an educational vision for the school, it does not mean that they perceive high levels of self-efficacy in this competency. The discrepancy between what APs feel confident in doing and what they actually do is analogous to John Lee, Paula Kwan, and Allan Walker's (2009) findings around the inconsistency between the actual duties of APs and the duties they feel are the most important. Given that the principal has the most influence on defining the role of the AP, it is imperative that principals and APs build strong relationships (Goodman & Berry, 2011) that capitalize on the critical nature of mentoring in the role of early-leadership development (Zellner, Jinkins, Gideon, Doughty, & McNamara, 2002).

The investigation of APs' beliefs about the principalship garnered the greatest amount of distinctions in the levels of self-efficacy and practice. Although most responses were in the "agree" or "strongly agree" categories, there were significant differences based on the attitudes toward the office of the principalship. Those who strongly agreed that the principalship can make a difference in the lives of staff and students reported higher self-efficacy and practice in most of the domains of school leadership. The same finding resulted in the belief that the principalship provides opportunities for professional growth and the office enables a leader to influence school change.

Assistant principals who believed that principals enable an influence on school change spent more time engaging in instructional leadership, school improvement, and management, but less time building and sustaining family and community relationships. Additionally, those who believed that the principalship provides opportunities for professional growth spent more time in the areas of school improvement, instructional leadership, and management. It is important to note that APs who held strong convictions about the efficacy of the principalship spent 10–13 percent more time on school improvement than their peers. This affirms previous research in the area of self-efficacy in that individuals with higher levels of self-efficacy engage in more difficult tasks, give more effort, and persist longer (Ouellette & Wood, 1998). Although the results suggest that assistant principals would generally engage in all the domains at a higher frequency than their peers, they still spend the least amount of time and report the least amount of self-efficacy in the domains of instructional leadership and school improvement, respectively. Given that most assistant principals welcome the opportunity to engage in the role of being an instructional leader (Oleszewski, Shoho, & Barnett, 2012), these results reaffirm the importance of the purposeful role of the principal in preparing the assistant principal to assume the principalship (Berry, Daughtrey, & Wieder, 2010; Bottoms, O'Neill, Fry, & Hill, 2003).

The results of principal attitudes toward the principalship indicate that personal convictions dictated behavior more than any other factor. This is consistent with previous assertions that argue that since espoused values and values in action are not always congruent (Argyris & Schön, 1974; Devereaux, 2003), personal beliefs are a strong predictor of behavior (Bandura, 1986; Rokeach, 1972). Since global differences were found based on attitudes toward the efficacy of the profession, this is an area that should be investigated in determining future engagement in the domains of leadership.

Implications

Based on empirical findings, this study confirms the need for further research and the refinement of the role of the AP. The results indicated that, in addition to strengths, there were explicit gaps and differences in the leadership practices of APs that need to be addressed. This would indicate that a proliferation of duties and the lack of a consistent set of practices persist. Numerous implications for policy and practice could be drawn from the results of this study.

First, school districts looking to take advantage of the role of the AP to increase the leadership function throughout the organization should consider the results of this study, as it reveals missed opportunities for the leadership capacity and practice of APs (Oleszewski, Shoho, & Barnett, 2012). Additionally, school districts should consider the use of a leadership framework that specifies shared expectations for leadership that will allow emergent leaders and their mentors to identify their strengths and areas to reinforce. Those involved in the socialization of APs should consider how to make the role more intentional in both a high-level use of the role and in the preparation for the principalship (Marshall, Mitchell, Gross, & Scott, 1992; Mertz, 2006; Normore, 2004).

Second, since the principal is still the main determinant of the responsibilities of the AP, it will be incumbent upon the principal to mentor APs in such a way that the AP has proficient self-efficacy and practice in all areas of school leadership (Berry, Daughtrey, & Wieder, 2010; Bottoms, O'Neill, Fry, & Hill, 2003). That is especially the case for the domains of instructional leadership and school improvement, since APs report the lowest levels of self-efficacy and practices in these domains.

Finally, APs who have stronger positive attitudes about the efficacy of the principalship have higher levels of self-efficacy and engage in the domains of leadership at higher rates. This is consistent with previous literature that found that the perceptions of school leader are important predictors of effective leadership practices and academic climate (Leithwood & Jantzi, 2008; Urick & Bowers, 2011).

Future research

There are numerous areas that could be addressed through additional research. Going deeper into inquiry around the capacity and practice of assistant principals will allow researchers to make more robust recommendations about the assistant principalship. First, it would be important for this study to be replicated with assistant principals in urban districts in other regions of the country and with suburban and rural assistant principals. A larger sample of assistant principals will be more representative of the population of assistant principals and thus reduce the influence of outliers and extreme observations (Patel, Doku, & Tennakoon, 2003). It will also offer greater analysis based on the ability to conduct a more in-depth analysis of the data. This study could also be replicated with principals to determine the difference between the capacity and practice of principals compared to assistant principals.

Because attitudes toward the principalship was the factor that indicated the greatest difference in the level of capacity and practice, further research needs to be conducted along this line of inquiry. Future studies could include research about the impact of beliefs about the principalship on the capacity and practice of assistant principals, and the relationship between leadership beliefs and career.

Conclusion

The leadership provided by the role of the assistant principal is vital to the success of schools and students. Although the traditional focus on the actions of assistant principals concentrated on school reform and transformation, the current research gives credence to looking deeper at the efficacy of the profession as measured by attitudes and beliefs about the possibilities of the principalship.

Furthermore, the findings in this study provide empirical support for the notion that the three areas of self-efficacy, practice, and context are related in such a manner that it is judicious to consider them in bolstering the cadre of leadership. Continuing to use traditional methods of tapping leaders may only serve to reinforce disparities in leadership competencies and diversity (DeAngelis & O'Connor, 2012; Myung, Loeb, & Horng, 2011; Pounder & Crow, 2005), while a more inclusive view of the interchange of self-efficacy, practice, and context may help to bolster the infrastructure that supports the development of capable leadership.

References

Argyris, C., & Schön, D.A. (1974). *Theory in practice: Increasing professional effectiveness.* San Francisco, CA: Jossey-Bass.

Armstrong, D. (2009). *Administrative passages: Navigating the transition from teacher to assistant principal* (Vol. 4). New York, NY: Springer.

Austin, D.B., & Brown, H.L. (1970). *Report of the assistant principalship. Volume 3: The study of the secondary*. Washington, DC: National Association of Secondary School Principalship.

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, *84*(2), 191-215.

Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice-Hall.

Bandura, A. (1994). Self-efficacy. In V.S. Ramachaudran (Ed.), *Encyclopedia of human behavior* (Vol. 4, pp. 71–81). New York, NY: Academic Press. (Reprinted in H. Friedman [Ed.], *Encyclopedia of mental health*. San Diego, CA: Academic Press, 1998

Bandura, A. (1997). *Self-efficacy: The exercise of control.* New York, NY: Freeman.

Bandura, A. (2008). Reconstrual of "free will" from the agentic perspective of social cognitive theory. In J. Baer, J.C. Kaufman, & R.F. Baumeister (Eds.), *Are we free? Psychology and free will* (pp. 86–127). Oxford, UK: Oxford University Press.

Bandura, A. (2009). Cultivate self-efficacy for personal and organizational effectiveness. *Handbook of Principles of Organization Behavior* (2nd ed.). New York, NY: Wiley.

Bandura, A., & Jourden, F.J. (1991). Self-regulatory mechanisms governing the impact of social comparison on complex decision making. *Journal of Personality and Social Psychology*, *60*(6), 941–951. doi:10.1037/0022-3514.60.6.941

Barnett, B.G., Shoho, A.R., & Oleszewski, A.M. (2012). The job realities of beginning and experienced assistant principals. *Leadership and Policy in Schools*, *11*(1), 92–128.

Berry, B., Daughtrey, A., Wieder, A., & Center for Teaching Quality. (2010). *Teacher leadership: Leading the way to effective teaching and learning.* Columbus, OH: ERIC Clearinghouse.

Bloom, G., & Krovetz, M. (2001). A step into the principalship. *Leadership, 30*(3), 12–13.

Bottoms, G., O'Neill, K., Fry, B., & Hill, D. (2003). *Good principals are the key to successful schools: Six strategies to prepare more good principals.* Atlanta, GA: Southern Regional Education Board.

Burdette, M., & Schertzer, K. (2005). *Cultivating leaders from within.* Alexandria, VA: Association for Supervision and Curriculum Development.

Cantwell, Z.M. (1993). School-based leadership and professional socialization of the assistant principal. *Urban Education, 28*(1), 49–68.

Cervone, D., & Scott, W. (1995). Self-efficacy theory of behavioral change: Foundations, conceptual issues, and therapeutic implications. In W. O'Donohue & L. Krasner (Eds.), *Theories of behavior therapy: Exploring behavior change* (pp. 349–383). Washington, DC: American Psychological Association.

Clifford, M., Behrstock-Sherratt, E., & Fetters, J. (2012). *The ripple effect: A synthesis of research on principal influence to inform performance evaluation design.* Washington, DC: American Institutes for Research.

Cohen, J. (1988). Statistical power analysis for the behavioral sciences. (2nd ed.), Hillsdale, N.J.: L. Erlbaum Associates.

Darling-Hammond, L., LaPointe, M., Meyerson, D., Orr, M.T., & Cohen, C. (2007). *Preparing school leaders for a changing world: Lessons from exemplary leadership development programs*. Stanford, CA: Stanford University, Stanford Educational Leadership Institute.

DeAngelis, K.J., & O'Connor, N.K. (2012). Examining the pipeline into educational administration: An analysis of applications and job offers. *Educational Administration Quarterly*, *48*(3), 468-505. doi:10.1177/0013161X11436269

Devereaux, L. (2003). Espousing democratic leadership practices: A study of values in action. *Alberta Journal of Educational Research, 49*(4), 309–324.

Eckman, E.W., & Kelber, S.T. (2010). Female traditional principals and co-principals: Experiences of role conflict and job satisfaction. *Journal of Educational Change, 11*(3), 205–219.

Fenwick, L.T., & Pierce, M.C. (2001). The principal shortage: Crisis or opportunity? *Principal, 80*(4), 24–25.

Fullan, M. (2003). *Change forces with a vengeance.* New York, NY: Routledge & Falmer Press.

Garrett, V., & McGeachie, B. (1999). Preparation for headship? The role of the deputy head in the primary school. *School Leadership & Management*, *19*(1), 67-81. doi:10.1080/1363 2439969348

Glanz, J. (2004). *The assistant principal's handbook: Strategies for success*. Thousand Oaks, CA: Corwin Press.

Goodman, C., & Berry, C. (2013). *Great assistant principals and the (great) principals who mentor them: A practical guide*. Abingdon, UK: Routledge.

Guskey, T.R., & Passaro, P.D. (1994). Teacher efficacy: A study of construct dimensions. *American Educational Research Journal*, *31*(3), 627–643.

Halverson, T.J., & Plecki, M.L. (2015). Exploring the politics of differential resource allocation: Implications for policy design and leadership practice. *Leadership and Policy in Schools, 14(1),* 42–66.

Hartzell, G.N. (1995). *New voices in the field: The work lives of first-year APs*. Thousand Oaks, CA: Corwin Press.

Hausman, C., Nebeker, A., McCreary, J., & Donaldson, G. (2002). The worklife of the AP. *Journal of Educational Administration*, *40*(2), 136–157.

Johnson-Taylor, C., & Martin, M.B. (2007). *Next in line: Preparing assistant principals for the principalship*. Reston, VA: National Association of Secondary School Principals.

Kottkamp, R.B. (2011). Introduction: Leadership preparation in education. *Educational Administration Quarterly*, *47*(1), 3–17.

Kwan, P. (2009). The vice-principal experience as a preparation for the principalship. *Journal of Educational Administration, 47*(2), 191–205.

Kwan, P., & Walker, A. (2011). APs in Hong Kong: Their responsibilities, role alignments, job satisfaction, and career aspirations. In A.R. Shoho, B. Barnett, & A.K. Tooms (Eds.), *Examining the assistant principalship: New puzzles and perennial challenges for the 21st century* (pp. 59–80). Charlotte, NC: Information Age Publishing, Inc.

Lee, J.C., Kwan, P., & Walker, A. (2009). Vice-principalship: Their responsibility roles and career aspirations. *International Journal of Leadership in Education, 12*(2), 187–207.

Leithwood, K., & Jantzi, D. (2008). Linking leadership to student learning: The contributions of leader efficacy. *Educational Administration Quarterly, 44*(4), 496–528.

Leithwood, K., Louis, K.S., Anderson, S., & Wahlstrom, K. (2004). *How leadership influences student learning.* Toronto, ON: University of Minnesota.

Lomax, R.G., & Hahs-Vaughn, D.L. (2012). *An introduction to statistical concepts* (3rd ed.). New York, NY: Routledge.

Marshall, C., & Hooley, R.M. (2006). *The AP: Leadership choices and challenges.* Thousand Oaks, CA: Corwin Press.

Marshall, C., Mitchell, B., Gross, R., & Scott, D. (1992). The assistant principalship: A career position or a stepping-stone to the principalship? *NASSP Bulletin, 76*(540), 80–88.

McCullers, J.F., & Bozeman, W. (2010). Principal self-efficacy: The effects of no child left behind and Florida school grades. *NASSP Bulletin, 94*(1), 53–74.

Melton, T.D., Mallory, B.J., Mays, R., & Chance, L. (2011). Challenges to school leadership practice. In A.R. Shoho, B. Barnett, & A.K. Tooms (Eds.), *Examining the assistant principalship: New puzzles and perennial challenges for the 21st century* (pp. 81–110). Charlotte, NC: Information Age Publishing, Inc.

Mertz, N.T. (2006). The organizational socialization of APs. *Journal of School Leadership, 16*(6), 644–675.

Myung, J., Loeb, S., & Horng, E. (2011). Tapping the principal pipeline identifying talent for future school leadership in the absence of formal succession management programs. *Educational Administration Quarterly, 47*(5), 695–727.

Normore, A.H. (2004). Leadership success in schools: Planning, recruitment, and socialization. *International Electronic Journal for Leadership in Learning, 8*(10), n.p.

Oleszewski, A., Shoho, A., & Barnett, B. (2012). The development of APs: A literature review. *Journal of Educational Administration, 50*(3), 264–286.

Orr, M.T. (2011). Pipeline to preparation to advancement: Graduates experiences in, through, and beyond leadership preparation. *Educational Administration Quarterly*, *47*(1), 114–172.

Orr, M.T., & Orphanos, S. (2011). How graduate-level preparation influences the effectiveness of school leaders: A comparison of the outcomes of exemplary and conventional leadership preparation programs for principals. *Educational Administration Quarterly*, *47*(1), 18–70.

Orr, M.T., Jackson, K., & Rorrer, A. (2009). Following up graduates: Development of the school leadership preparation and practice survey and a shared research process. *UCEA Review*, *49*(3), 29–35.

Ouellette, J.A., & Wood, W. (1998). Habit and intention in everyday life: The multiple processes by which past behavior predicts future behavior. *Psychological Bulletin*, *124*(1), 54–74. doi:10.1037/0033-2909.124.1.54

Patel, M.X., Doku, V., & Tennakoon, L. (2003). Challenges in recruitment of research participants. *Advances in Psychiatric Treatment, 9*(3), 229–238. doi:10.1192/apt.9.3.229

Pellicer, L., Anderson, L., Keef, J., Kelley, E., & McCleary, L. (1988). Tasks and problems of school leaders. In P.L. George (ED.), *High School Leaders and Their Schools*: Volume 1: A national profile, 15–25. Reston, VA: National Association of Secondary Principals.

Petridou, A., Nicolaidou, M., & Williams, J.S. (2014). Development and validation of the school leaders' self-efficacy scale. *Journal of Educational Administration, 52*(2), 228–253.

Petzko, V. (2008). The perceptions of new principals regarding the knowledge and skills important to their initial success. *NASSP Bulletin, 92*(3), 224–250.

Pierce, M. (2000). Portrait of the "super principal." *Harvard Education Letter, 16*(5), 1–5.

Pounder, D.G. (2011). Leader preparation: Implications for policy, practice, and research [special issue]. *Educational Administration Quarterly*, *47*(1), 258–267.

Pounder, D.G. (2012). School leadership preparation and practice survey instruments and their uses. *Journal of Research on Leadership Education*, *7*(2), 254–274.

Pounder, D.G., & Crow, G. (2005). Sustaining the pipeline of school administrators. *Educational Leadership, 62*(8), 56–60.

Pounder, D.G., & Merrill, R.J. (2001). Job desirability of the high school principalship: A job choice theory perspective. *Educational Administration Quarterly, 37*(1), 27–57.

Read, S.P. (2011). Factors that influence the preparedness of teachers for the vice-principal role. In A.R. Shoho, B. Barnett, & A.K. Tooms (Eds.), *Examining the assistant principalship: New puzzles and perennial challenges for the 21st century* (pp. 11–34). Charlotte, NC: Information Age Publishing, Inc.

Rokeach, M. (1972). *Beliefs, attitudes, and values: A theory of organization and change* (4th ed.). San Francisco, CA: Jossey-Bass.

Sergiovanni, T.J. (2001). *The principalship: A reflective practice perspective*. Boston, MA: Allyn and Bacon.

Sitzmann, T., & Ely, K. (2011). A meta-analysis of self-regulated learning in work-related training and educational attainment: What we know and where we need to go. *Psychological Bulletin*, *137*(3), 421-442. doi:10.1037/a0022777

Stajkovic, A.D., & Lee, D.S. (2001, August). A meta-analysis of the relationship between collective efficacy and group performance. In *National Academy of Management meeting*. Washington, DC.

Stajkovic, A.D., & Luthans, F. (2003). Social cognitive theory and self-efficacy: Implications for motivation theory and practice In R. M. Steers, L.W. Porter, & G. A. Bigley (Eds.), *Motivation and Work Behavior* (7th ed.)*,* 126-140. New York: NY*, McGraw-Hill.*

Stajkovic, A.D., & Luthans, F. (1998). Self-efficacy and work-related performance: A meta-analysis. *Psychological Bulletin*, *124*(2), 240–261.

Sun, A. (2011). Sharing instructional leadership as assistant principals in an accountability-oriented environment. In A.R. Shoho, B. Barnett, & A.K. Tooms (Eds.), *Examining the assistant principalship: New puzzles and perennial challenges for the 21st century* (pp. 153–180). Charlotte, NC: Information Age Publishing, Inc.

Urick, A., & Bowers, A.J. (2011). What influences principals' perceptions of academic climate? A nationally representative study of the direct effects of perception on climate. *Leadership and Policy in Schools*, *10*(3), 322–348.

Vancouver, J.B., Thompson, C.M., & Williams, A.A. (2001). The changing signs in the relationships between self-efficacy, personal goals, and performance. *Journal of Applied Psychology*, *86*(4), 605–620. doi:10.1037/0021-9010.86.4.605

Weller, L.D., & Weller, S.J. (2002). *The assistant principal: Essentials for effective school leadership.* Thousand Oaks, CA: Corwin Press.

Yeo, G.B., & Neal, A. (2006). An examination of the dynamic relationship between self-efficacy and performance across levels of analysis and levels of specificity. *Journal of Applied Psychology*, *91*(5), 1088-1101. doi:10.1037/0021-9010.91.5.1088

Zellner, L., Jinkins, D., Gideon, B., Doughty, S., & McNamara, P. (2002). *Saving the principal: The evolution of initiatives that made a difference in the recruitment and retention of school leadership.* Paper presented at the 2002 American Educational Research Association Annual Meeting. New Orleans, LA.