Do Something That Scares You Each Day:

The Role of Self-Efficacy in Preparing School Leaders

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Abstract

This study examined the relationship between the leadership readiness beliefs of perspective school leaders and the efficacy-building experiences in which they participated during university preparation programs. I developed and administered a survey to 176 prospective school leaders during the final months of their preliminary administrative credential preparation programs. I found a moderate positive correlation between the number of efficacy-building experiences in which students took part and the leadership readiness that they reported. Based on these results, this article offers specific recommendations for university programs that desire to best prepare their students through efficacy-based training.

As a new leader, I arrived at my school site each day and told myself that I would confront my fear of new challenges at least one time during that day. If I encountered that task first thing, I gave myself permission to delay subsequent challenges when possible. In time, I came to realize I was leaning on solid research for success in school leadership. However, the list of demands placed upon today's leaders is longer than it was for me, and it continues to grow (Davis, Darling-Hammond, LaPointe, & Meyerson, 2005; Fisher, 2011). Among other responsibilities, our school leaders are expected to transform instructional practices for diverse learners, foster inclusive cultures, meet the social and emotional needs of students and staff, develop coalitions that engage families and community partners, optimize fiscal resources, and respond to crises as they develop. Indeed, a newly appointed school principal is tasked with considerably different work than the retiring principal that he or she replaces. Complex tasks, often occurring simultaneously, require leaders to constantly rethink their roles, modify their responsibilities, and build new relationships (Davis et al., 2005; Dimmock & Hattie, 1996).

Although alternative methods for credentialing are available in some states, most school leaders continue to prepare through university programs. Critics have called for reform to these programs for many years (English, 2006; Levine, 2005; Murphy, 2006; Teitel, 2006), and some progress has been made with the revision of professional standards. Updated standards can serve to align expectations within and across programs, but they alone are not sufficient to ensure that programs will adequately prepare prospective leaders. Acknowledging this, some states have developed performance assessments that require candidates for the administrative credential to execute responsibilities associated with school leadership. Although the shift to performance assessment holds promise, effective preparation programs must do more to develop learning experiences that promote success in a broad range of school settings, under widely varied circumstances, and within an environment that changes rapidly.

The preparation of effective leaders should not focus on a fixed set of skills, because those skills are likely to continue to change at a rapid pace. Leadership preparation should be based upon tools that have been proven to correlate with successful performance, and the construct of efficacy has been shown to be essential. Bandura (1977, 1993) demonstrated that individuals process, weigh, and integrate diverse sources of information when encountering a new task. They filter the tasks that they choose and the effort that they expend based on feelings about their capacity to succeed. People with stronger efficacy set higher goals for themselves and are more committed to accomplishing them. Knowledge, skills, and prior success are all less predictive of performance than efficacy (Pajares, 1996).

Efficacy can be characterized as a "product of reciprocal causation" between belief and environment (Bandura & Wood, 1989, p. 806), and people who have greater efficacy are more likely to be successful and therefore feel more capable. This leads them to take on more challenging tasks that they are likely to do well, and their success yields even greater efficacy. Efficacy contributes to success in four distinct ways: It regulates the goals people are willing to set for themselves, it influences the amount of effort invested into goal attainment, it controls the amount of time people are willing to persevere in the face of obstacles, and it determines how well they will recover when they do not succeed (Bandura, 1993).

Individuals with stronger efficacy demonstrated more effective analytical thinking (Bandura & Wood, 1989). In management simulation exercises, those with high efficacy set increasingly challenging goals and exceeded their initial goals by a significant margin. Conversely, people identified with low efficacy set diminishing goals as the experiment

progressed. This is similar to what happens with successful and struggling schools and districts. Once school teams have been identified as achieving, they are praised for their performance, which begets higher goals and greater performance; conversely, schools that are identified as failing seldom seem to get beyond the label and continue to fail year after year.

Efficacious leaders are more effective in their pursuit of long-range goals (Tschannen-Moran & Gareis, 2004). Individuals with high efficacy are more willing to modify intermediate goals and strategies to respond to the needs of the individuals whom they lead. In contrast, leaders with low efficacy are rigidly persistent when confronted with failure, and they prove unwilling or unable to revise their goals or generate alternative strategies. Efficacy changes the way that leaders talk about their work: Individuals with high efficacy are overwhelmingly optimistic and reframe failures as challenges. They see a lack of progress as a realistic part of their jobs and not as an indictment of their own ability to lead (Tschannen-Moran & Gareis, 2004).

The research on efficacy in schools unilaterally points to the need for highly efficacious leaders (Bandura & Wood, 1989; Dimmock & Hattie, 1996; Eberhard, 2013). Efficacious schools and leaders are able to increase student achievement, reduce the impact of economic disadvantage, enhance relationships with families, and reinforce teacher commitment (Brinson & Steiner, 2007). In contrast, low self-efficacy was directly linked to the choice of some principals to leave the profession as well as a major consideration when a school failed to improve (Federici & Skaalvik, 2012).

If our schools need efficacious leaders, then university programs should seek to develop efficacy in prospective leaders. Although research supports the proposition that school leaders need efficacy, there is a paucity of data to inform *how* efficacy can be developed during preparation. Bandura's (1977, 1978, 1986, 1993, 2006) extensive body of research gives clear direction on the four ways that efficacy can be developed: performance accomplishments, vicarious experiences, verbal persuasion, and affective state.

The present research sought to determine if prospective administrators developed efficacy through participation in efficacy-building experiences in university preparation programs. This article presents the methodology for this quantitative study, a discussion of research findings, and implications for the field of educational administration.

Method

This study explored the relationship between participation in efficacy-building experiences in leader preparation programs and the leadership readiness reported by candidates in those programs. There is ample research both on methods for developing efficacy and on the preparation of school leaders, but no instrument existed to examine the two factors in concert. The quasi-experimental design for this study investigated quantitative data from a survey developed and administered to preliminary credential candidates nearing the end of their preparation programs. The hypothesis was that if prospective school leaders are trained using methods identified to build efficacy, then students will report a greater readiness to lead our schools. The guiding research question for this study was: Do students who participate in more efficacy-building experiences during their administrative preparation programs report greater leadership readiness than do those whose programs contained fewer efficacy-building experiences?

I asked candidates for the preliminary administrative services credential about their preparation programs. I selected five state university campuses for participation because they were well established, offered competitively priced programs, and were the top producers of educational leaders in the region of study at the time. In addition, graduates of these programs work in a wide variety of school settings. Although the requirements of these programs are specific to the state of California, prospective school leaders in other states participate in similar courses of study. This study sought to include all students who were within six months of completing their preliminary credential program. I administered a paper-and-pencil survey during face-to-face encounters in all classes that granted access. The convenience sample included 176 respondents.

Designed to explore the efficacy beliefs of individuals enrolled in preliminary administrative preparation programs, items in the survey measured two general constructs: leadership readiness (dependent variable) and efficacy-building experiences (independent variable). The first construct, leadership readiness, was developed to measure leadership efficacy. Efficacy is not a global trait but rather a measure of an individual's belief in his or her ability to succeed in a given domain (Bandura, 2006). Therefore, an efficacy survey in a given area, such as school leadership, must first identify the traits or behaviors that are required for success in that domain. It did not matter whether a respondent believed that he or she would actually have the opportunity to demonstrate a certain leadership behavior; rather, what mattered in the construct of efficacy was the individual's belief that he or she would be able to demonstrate the behavior. I also carefully worded my questions to avoid confusion with the construct of motivation: The survey did not ask participants to state whether they were eager to demonstrate the behavior, but rather whether they believed they could do so when needed.

Efficacy is measured by determining what is necessary to be successful in a particular domain of functioning (Bandura, 2006), and for this purpose I used the McREL Balanced Leadership Framework (Waters & Cameron, 2007). This meta-analysis identifies 21 leadership responsibilities that are correlated to student achievement. These responsibilities are grouped into three domains: focus, magnitude, and purposeful community.

The first domain, focus, designates the set of behaviors by which effective leaders ensure that the efforts of the school are aimed at developing practices that promote positive outcomes for students. The second domain, magnitude, includes responsibilities that support a substantial shift in the underlying value systems whereby schools operate rather than changes in isolated procedures or practices. Magnitude is represented by a break with the past as opposed to an extension of old practices: This is change that is outside of existing paradigms and that requires new knowledge and a new set of skills to implement. The third domain, purposeful community, is the cultivation of a school community that is bonded together by a common goal that can only be achieved if all members participate.

In the survey, these responsibilities were formulated into statements, and prospective school leaders were asked to consider whether they believed they would be able to successfully execute them. The statements were designed to provide information about overall perceptions of leadership readiness as well as readiness within the subdomains of focus, magnitude, and purposeful community. The data were measured by a 5-point Likert scale, ranging from 1 = strongly agree to 5 = strongly disagree (Table 1).

Table 1
Responsibilities of Effective School Leaders, Grouped Into Subscale Domains

Focus	Magnitude	Purposeful Community
Contingent rewards	Change agent	Affirmation
Discipline	Flexibility	Communication
Involvement in curriculum, instruction, and assessment	Knowledge of curriculum, instruction, and assessment	Culture
Focus	Intellectual stimulation	Ideals/beliefs
Order	Ideals/beliefs	Input
Outreach	Monitor/evaluate	Relationships
Resources	Optimize	Situational awareness
		Visibility

Note. Adapted from *The Balanced Leadership Framework: Connecting Vision with Action*, by T. W. Waters and G. Cameron, 2007, p. 17. Copyright 2007 by the Mid-Continent Research for Education and Learning.

The second construct, efficacy-building experiences, was measured using Bandura's (1977) research on the four categories of experiences that promote the development of efficacy: performance accomplishments, vicarious experiences, verbal persuasion, and affective state. Activities typical to administrative credential programs were included in each category. Because the list was not exhaustive, participants had the opportunity to list other experiences that may have contributed to the development of efficacy. Ranges for these items were: 0 (not checked), 1–3, 4–5, and 6+.

The third and final section of the survey was aimed at collecting demographic information and asked about participant characteristics, their interest in a leadership position, and the communities in which they had worked.

I evaluated the content validity for leadership readiness items by carefully examining the research on effective school leadership and the development of efficacy (Nardi, 2006). I also determined the reliability of the data and used items that measured the same construct in alternate forms to establish inter-item reliability. In addition, I examined the responses of individuals within cohort groups to determine whether respondents who were supposed to have experienced similar activities consistently reported participating in efficacy-building exercises. Finally, I evaluated leadership readiness items for internal consistency using Cronbach's alpha ($\alpha = .94$). This statistic should be viewed with caution, as it would appear that many of the self-reported leadership readiness scores were higher than expected. An overall inflation of leadership readiness could have led to consistency among items that is above the expected values. After collection, I carefully reviewed the data to detect inaccuracies and audited the results for each question to ensure that there were no data entry errors and that all values were within appropriate limits.

This study made use of several statistical procedures. First, I calculated descriptive statistics for each question to examine data trends. Response frequencies were tabulated to organize and summarize the responses. I also evaluated measures of central tendency for skewness due to the potential bias of self-reported measures. The data for these calculations are organized into the constructs of leadership readiness and efficacy-building experiences. Within

each scale, I also computed subscale statistics; however, there was minimal variation among subscale scores, and therefore these data will not be the focus of this article.

To examine the proposed correlation between leadership readiness and efficacy-building experiences, I conducted additional statistical procedures. Arithmetic means were compared for the items in each construct to examine response trends across several items. For each participant, scores for leadership readiness and efficacy-building experiences were evaluated for association, outliers, and possible restriction of range (Coladarci, Cobb, Minium, & Clarke, 2008). Next, I calculated the Pearson product moment correlation (Pearson *r*) to determine whether there was a significant correlation between leadership readiness and efficacy-building experiences.

One might argue that this research does not adequately measure what participants really know about how to succeed as school leaders. Indeed, this study's purpose was not to measure the knowledge, skills, and dispositions of prospective leaders; rather, it was designed to evaluate each candidate's perceptions about their ability to succeed, to measure their self-efficacy, and to assess whether these beliefs were cultivated during their university coursework. The hypothesis was that individuals who took part in a greater number of efficacy-building experiences would feel more prepared to be successful educational leaders. Because efficacy is a "product of reciprocal causation" (Bandura & Wood, 1989, p. 806), those who have higher self-efficacy will take on greater challenges, persevere to a greater degree when they struggle, and subsequently will set higher goals for themselves. These individuals will be better prepared to lead than persons with low efficacy, who are more likely to avoid challenging tasks and to struggle when confronted with difficulties.

Findings

All the participants were preliminary administrative services credential students who had completed their courses of study no more than six months before. The first construct, leadership readiness, was comprised of 31 questions that asked respondents to reflect on their readiness to carry out school leadership responsibilities that research has linked to increased student achievement (Marzano, Waters, & McNulty, 2005). These items measured self-efficacy, and measures of central tendency for each of the items in the leadership readiness subscales were calculated. Although there were minor differences between items and subscales, the results for these questions were overwhelmingly consistent: Most participants felt that they were ready to take on the responsibilities of school leadership. They felt most prepared to develop a purposeful community (M = 4.42), but they also felt well prepared to carry out responsibilities associated with magnitude (M = 4.31) and focus (M = 4.17). The mean for leadership readiness was 4.32, with a standard deviation of .464. Like subscale items, this value was negatively skewed (–1.172), but within normal limits for a sample of this size. These values are reported in Table 2.

Table 2
Leadership Readiness: Means for Scale and Subscales

Scale	Mean	Std. Deviation	Skewness
Leadership Readiness	4.32	.464	–1.172
Subscales			
Purposeful Community	4.42	.464	–.974
Magnitude	4.31	.478	–1.182
Focus	4.17	.547	–1.054

The second construct, efficacy-building experiences, was measured by asking participants to report on the types of experiences that research has linked to efficacy in which they took part during their administrative credential programs (Bandura, 1977). Participants noted whether they had experienced the activity and circled the number of occurrences for each item. Subscales were created based on the four types of experiences outlined in the research: performance accomplishments, vicarious experiences, verbal persuasion, and affective state.

With the exception of the verbal persuasion subscale ($M = 2.34$), means for the subscales were identical; although dispersion and skewness varied across subscales, calculated means for performance accomplishments, vicarious experiences, and affective state were each found to equal 1.77. The mean for efficacy-building experiences in its entirety was 1.90 ($SD = .474$). The distribution for these values has a small degree of negative skew (–.145). These values are reported in Table 3.

Table 3
Efficacy-Building Experiences: Means for Scale and Subscales

Scale	Mean	Std. Deviation	Skewness
Efficacy Building Experiences	1.90	.474	–.145
Subscales			
Performance accomplishments	1.77	.587	.123
Vicarious experiences	1.77	.641	–.523
Verbal persuasion	2.34	.665	–.896
Affective state	1.77	.711	–.257

The use of a scatterplot evidenced the existence of a linear relationship between leadership readiness (dependent variable) and efficacy-building experiences (independent variable), with a positive relationship demonstrating some restriction of range in the uppermost values of the dependent variable. Calculation of the Pearson r showed that the correlation between the leadership readiness and efficacy-building experiences scales was moderately significant, $r\ (174) = .268$, $p < .01$. This calculated value may underrepresent the relationship between the two constructs due to the aforementioned restriction of range. Nevertheless, these results confirm the hypothesis that students who participate in more efficacy-building experiences during their administrative preparation programs report greater leadership readiness than do those whose programs contain fewer efficacy-building experiences.

I also investigated the impact of specific types of efficacy-building experiences on the development of leadership readiness by examining the relationships between the efficacy-building experiences subscales and the overall leadership readiness scale. Again, there was a statistically significant moderate correlation [$r\ (174) = .268$, $p < .01$] between leadership

readiness and efficacy-building experiences. Although stronger correlations were found for performance accomplishments (r = .227) and verbal persuasion (r = .227) compared to affective state (r = .190) and vicarious experiences (r = .135), all of these values were weaker than was the association between leadership readiness and the entirety of efficacy-building experiences (Table 4).

Table 4
Correlations Between Leadership Readiness and Efficacy-Building Experience, Overall and Between Subscales (N = 176)

	Efficacy-Building Experiences (Overall)	Subscales			
		Performance Accomplishments	Vicarious Experiences	Verbal Persuasion	Affective State
Leadership Readiness	.268*	.227*	.135*	.227*	.190*

Note. *p < .01.

Implications

The negative skew in all items of the leadership readiness scale demonstrates that participants tended to rate themselves in the higher portions of the scale, and responses of "somewhat likely" and "highly likely" were common. This skew can be attributed to several causes, including the bias often present in self-reported measures. It is also conceivable that responses were negatively skewed because it is difficult to fully grasp the challenge of educational leadership until one has actually worked as a school leader. During administrative fieldwork, participants are asked to complete tasks that simulate the responsibilities of a school leader, but this happens in a controlled environment with low stakes and limited competing responsibilities; therefore, these experiences cannot truly replicate the job participants seek.

Fieldwork tasks do prepare administrative credential candidates by developing an understanding of the types of responsibilities that they will take on, but they do not replicate the "overloaded circuits" that cause very capable individuals to underperform and consequently question their own abilities (Hallowell, 2005, p. 54). In fact, there is evidence in these data to support this proposition. Although only six of the participants in this study reported that they had already assumed leadership positions, these individuals reported a marginally lower mean leadership readiness than their peers who had not yet assumed the role of a school leader. One would expect that these six respondents would demonstrate more readiness, considering that they already serve in this capacity. However, it is conceivable that current administrators reported less readiness because they have a better understanding of the high-stress environment in which these responsibilities must be carried out.

Responses to questions pertaining to efficacy-building experiences also yielded meaningful information about administrative credential programs. Distributions for individual questions in this scale yielded significant skew, but skewness for the overall scale (–.145) and subscales was not as pronounced as it was for items in the leadership readiness scale.

Respondents had the opportunity to develop efficacy through a large number of performance accomplishments by executing administrative tasks. Typical fieldwork activities for credential candidates include tasks such as creating a recess duty schedule, planning a

presentation for staff development, or mentoring a new teacher in a specific area of need. Although it did not focus specifically on such activities, this study found that participants had many opportunities to perform procedural duties but markedly fewer opportunities to develop their skills by taking on more complex responsibilities. The types of performance accomplishments that were reported in this study tended toward managerial functions (carrying out policies and procedures) and were deficient in the kinds of activities that can promote the development of instructional leadership. This finding was foreseeable, considering that instructional leadership is a relatively recent transformation to the role of the educational leader.

As expected, the greatest number of efficacy-building experiences was found in the area of verbal persuasion (subscale $M = 2.59$). Participants had many opportunities to hear advice from their course instructors and mentors. These results are consistent with Bandura's (1977) research, which found verbal persuasion to be the preferred method by which those who train organizational leaders attempt to build efficacy. Bandura also reported, however, that this was the least effective method for building efficacy, and that it did not produce measureable gains unless it was combined with performance accomplishments and vicarious experiences.

These results are consistent with what can be observed in traditional training practices: Although these experiences can help familiarize credential candidates with some aspects of the school leader's job, they appear to miss what may be better opportunities to train our future leaders. In particular, preparation for leading in today's complex environment would benefit from more varied performance accomplishments.

This research found a significant moderate positive correlation between the number of efficacy-building experiences in which respondents participated and the leadership readiness that they reported [r (174) = .268, $p < .01$]. Administrative credential candidates who participated in more efficacy-building experiences did report greater leadership readiness. This finding was demonstrated despite the restricted range for the dependent variable, leadership readiness. Research supports the possibility that the true correlation between leadership readiness and efficacy-building experiences could be stronger if the study were repeated with an alternate scale designed to reduce the effects of range restriction (Coladarci et al., 2008). Because this study was quasi-experimental, the results do not demonstrate a causal relationship between the variables—that is, it is not possible to say that efficacy-building experiences *caused* leadership readiness to increase. It is possible that additional factor(s) outside the scope of this study led to the increase in leadership readiness.

Nevertheless, the presence of a greater number of efficacy-building experiences was associated with an increase in the leadership readiness beliefs of the participants. This is consistent with Bandura's (1977) findings showing that those who took part in a greater number of experiences gained greater efficacy, subsequently set higher goals for themselves, and persevered when challenged. Credential candidates wanting to prepare for futures in educational leadership would benefit from maximizing their participation in efficacy-building experiences, and university programs that desire to best prepare their students should incorporate a larger number of experiences designed to build efficacy.

This research also sought to determine if specific types of efficacy-building experiences yielded greater leadership readiness. In other words, did the sum of all experiences evenly correlate with leadership readiness, or did one of the subscales of efficacy-building experiences (performance accomplishments, vicarious experiences, verbal persuasion, or affective state) show a stronger correlation? The data show that each of the four subscales significantly

correlated to leadership readiness, but none of the subscales demonstrated a correlation as strong as that which was found overall. Therefore, it appears that it is the sum of these experiences that matters more than any specific domain of activities. This is consistent with Bandura's (1977) research, which alluded to the effects of combining verbal persuasion with performance experiences. Further, Bandura stated that an individual's affective state mattered to the extent that it either aided or hindered involvement in other types of experiences.

This finding also calls into question the manner in which fieldwork often focuses on individual tasks in isolation. If the sum of experiences is more important than individual tasks, and the job of a school leader is characterized by an environment in which multiple duties must be accomplished simultaneously, then fieldwork should require a similar experience.

This research demonstrates that the areas of responsibility for education leaders are interrelated and should not be considered in isolation. Theoretical constructs often present frameworks for leaders as a collection of discrete actions. However, these data reinforce the practical reality that the responsibilities of a school leader are not so linear or discrete. The work of a school leader is not performed as a series of isolated actions, detached from each other. Educational leadership involves multiple tasks that depend upon one another, happen simultaneously, and affect each other's outcome. The data in this study support the proposition that leadership readiness is developed in sum, rather than in specific domains.

The results of this study form the basis for several recommendations for the preparation of educational leaders. The main finding of this study is that the inclusion of a greater number of efficacy-building experiences into administrative credential programs will increase the leadership readiness of our future leaders. A systematic program that explicitly includes efficacy-building experiences (performance accomplishments, vicarious experiences, verbal persuasion, and affective state) into field experiences and coursework will provide future school leaders with better training for their positions.

The impetus for this research was a criticism of educational leadership programs that has permeated both the literature and the public dialogue. This study posited that programs that invest in efficacy building can increase their viability by proving that they are needed to develop effective leaders prepared to meet the complex demands of today's schools.

However, this study was not able to identify specific programs or program characteristics that contributed to the development of leadership readiness. Therefore, this research suggests that a wide range of efficacy-building activities should be incorporated in administrative credential programs, so that students can maximize the number of efficacy-building experiences in which they participate. Further, individuals who participate in these experiences should expect them to help develop a generalized leadership readiness, as the development of specific types of leadership readiness was not found. It is my hope that this research will serve as an impetus for the refinement of educational leadership curricula and that future research will provide further insights on incorporating efficacy-based training into the preparation of high-quality educational leaders.

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