



Principals' sense of efficacy

Assessing a promising construct

Principals' sense
of efficacy

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Keywords *Principals, Motivation (psychology), Beliefs, Measurement*

Received November 2003
Revised January 2004
Accepted February 2004

Abstract *In this era of accountability and significant school reform, efforts to improve schools increasingly look to the principal to spearhead change efforts at the school level. Good principals are the cornerstones of good schools. Without a principal's leadership efforts to raise student achievement, a school cannot achieve its fundamental academic mission. The principal is seen as a key agent at the school level, initiating change by raising the level of expectations for both teachers and students. One promising, but largely unexplored avenue to understanding principal motivation and behavior is principals' sense of efficacy. Self-efficacy is a perceived judgment of one's ability to effect change, which may be viewed as a foundational characteristic of an effective school leader. This paper reports on three studies that were conducted in the search for a reasonably valid and reliable measure to capture principals' sense of efficacy.*

In this era of accountability and significant school reform, efforts to improve schools increasingly look to the principal to spearhead change efforts at the school level. It is widely accepted that good principals are the cornerstones of good schools and that, without a principal's leadership efforts to raise student achievement, schools cannot succeed. The principal is seen as a key agent at the school level, initiating change by raising the level of expectations for both teachers and students. What principals do is a direct consequence of what and how they think (Leithwood and Steinbach, 1995; Leithwood *et al.*, 1994; McCormick, 2001; Sergiovanni, 1991). One promising, but largely unexplored avenue to understanding principal motivation and behavior is principals' sense of efficacy.

Theoretical framework

A principal's sense of efficacy is a judgment of his or her capabilities to structure a particular course of action in order to produce desired outcomes in the school he or she leads (Bandura, 1997). It is a principal's self-perceived capability to perform the cognitive and behavioral functions necessary to regulate group processes in relation to goal achievement (McCormick, 2001, p. 30). Self efficacy has a significant impact on goal-setting, level of aspiration, effort, adaptability, and persistence (Bandura, 1986; Gist and Mitchell, 1992). These beliefs affect the development of functional leadership strategies, and the skillful execution of those strategies (McCormick, 2001).

Self-efficacy beliefs are an element of social cognitive theory (Bandura, 1977, 1986, 1997). The major influences on efficacy beliefs are assumed to be the attributional analysis and interpretation of the four sources of efficacy information – mastery experience, physiological arousal, vicarious experience, and verbal persuasion. Self-efficacy beliefs are context-specific, however, people do not feel equally efficacious for all situations. Principals may feel efficacious for leading in particular contexts, but this sense of efficacy may or may not transfer to other contexts, depending on the



perceived similarities of the task. Therefore, in making an efficacy judgment, consideration of the elements of the task at hand are required. In addition, it is necessary to assess one's strengths and weaknesses in relation to the requirements of the task (Tschannen-Moran *et al.*, 1998). In analyzing the task, the relative importance of factors that make leading difficult or act as constraints in a particular context are weighed against an assessment of the resources available that facilitate leadership. In assessing self-perceptions of competence, the principal assesses personal capabilities such as skills, knowledge, strategies, or personality traits balanced against personal weaknesses or liabilities in this particular school setting. The interaction of these two components leads to judgments about self-efficacy for leadership in a particular school context.

The purpose of leadership is to facilitate group goal attainment by establishing and maintaining an environment favorable to group performance. "Successful leadership involves using social influence processes to organize, direct, and motivate the actions of others. It requires persistent task-directed effort, effective task strategies, and the artful application of various conceptual, technical, and interpersonal skills" (McCormick, 2001, p. 28). A robust sense of efficacy is necessary to sustain the productive attentional focus and perseverance of effort needed to succeed at organizational goals (Wood and Bandura, 1989). Leadership self-efficacy has been related to direction setting and to gaining followers' commitment, as well as in overcoming obstacles to change (Paglis and Green, 2002). Perceived self-efficacy influenced analytic strategies and subsequent organizational performance of managers in a simulated organizational environment (Wood and Bandura, 1989). Leadership self-efficacy was strongly related to performance evaluations by objective observers in a leadership simulation and to leadership rating by peers and superiors, as well as to subordinates performance abilities (Chemers *et al.*, 2000). Leader's self-efficacy has also been found to mediate employee's engagement with their work (Luthans and Peterson, 2002). Worker engagement occurs when the worker is cognitively vigilant and/or emotionally connected to others to find meaning in his or her work.

Although empirical studies of principal's sense of efficacy are few, the results are enticing. Self-efficacy beliefs are excellent predictors of individual behavior. Principals with a strong sense of self-efficacy have been found to be persistent in pursuing their goals, but are also more flexible and more willing to adapt strategies to meeting contextual conditions. They view change as a slow process. They are steadfast in their efforts to achieve their goals, but they do not persist in unsuccessful strategies (Osterman and Sullivan, 1996). Confronted with problems, high efficacy principals do not interpret their inability to solve the problems immediately as failure. They regulate their personal expectations to correspond to conditions, typically remaining confident and calm and keeping their sense of humor, even in difficult situations. Principals with higher self-efficacy are more likely to use internally-based personal power, such as expert, informational, and referent power, when carrying out their roles (Lyons and Murphy, 1994).

By contrast, low efficacy principals have been found to perceive an inability to control the environment and tend to be less likely to identify appropriate strategies or modify unsuccessful ones. When confronted with failure, they rigidly persist in their original course of action. When challenged, they are more likely to blame others. Low-efficacy principals are unable to see opportunities, to develop support, or to adapt

(Osterman and Sullivan, 1996). They are quicker to call themselves failures and demonstrate anxiety, stress, and frustration. Those with lower self-efficacy are more likely to rely on external and institutional bases of power, such as coercive, positional, and reward power (Lyons and Murphy, 1994). The perception of the environment as uncontrollable had a debilitating effect on individual goal setting and problem solving. These findings are consistent with the evidence offered by Janis and Mann (1977) that "those who perceive themselves to be inefficacious adopt faulty decision strategies characterized by inadequate identification and assessment of alternatives and incomplete evaluation of feedback" (Osterman and Sullivan, 1996, p. 681).

Inefficacious beliefs have been related to higher levels of burnout (Friedman, 1997). Task stressors such as overload, role ambiguity and role conflict, external relations (such as with parents and community representatives) as well as emotional and problem-focused coping strategies also played a role in predicting burnout. Burnout was associated with exhaustion and a lack of a sense of accomplishment, as well as negative attitudes, depersonalization, or a lack of empathy toward teachers, students, and parents.

Though the literature on principals' sense of efficacy is small, there are already some intriguing results that invite further study. However, like teachers' sense of efficacy, the study of principals' efficacy beliefs has been hampered by the lack of a reliable and valid instrument to capture the construct (Tschannen-Moran and Woolfolk Hoy, 2001). The purpose of this study was to examine the instruments currently in use and to develop a reasonably valid and reliable measure to capture this promising construct.

Measuring principals' sense of efficacy

Principals' sense of efficacy has been difficult to capture. Three measures currently in use in the literature are examined below. All have proven somewhat problematic. Each of these measures of principals' sense of efficacy as well as two new measures are examined in order to draw conclusions about an appropriate way to capture this important construct.

Bandura (2001) has made a number of recommendations for the construction of self-efficacy measures. Because self-efficacy beliefs are context specific, measures should assess the range of behaviors necessary to succeed at a given task in the predicted context. Self-efficacy measures should examine both level and strength of efficacy beliefs. Level refers to task difficulty and a range of tasks at varying degrees of difficulty should be used to tap efficacy beliefs. The strength of efficacy beliefs should be assessed by asking respondents to identify a point along a continuum of beliefs rather than an "all or none" or "yes-no" format.

The earliest measure of principals' efficacy beliefs was developed by Hillman (1986), along with the measures of teacher and student efficacy beliefs. In this measure, principals were presented with 16 situations and asked to determine the probable cause for the outcome. Following attribution theory (Weiner, 1979, 1992), both stability of the cause (as fixed or variable) and locus of control (as internal or external) were tapped. For each situation, four response choices were offered: the first choice attributing the situation to the "natural ability" of the principal; the second to effort; the third to the difficulty of the task; and the fourth to luck. This instrument is similar in format to two measures of teachers' sense of efficacy developed around the same time (Guskey, 1981; Rose and Medway, 1981), but none has met with sustained popularity

(Tschannen-Moran and Woolfolk Hoy, 2001). The forced choice format is cumbersome, making analysis difficult. In addition, the conceptual underpinnings of this measure are more closely aligned with attribution theory than with social cognitive theory.

Imants and De Bradbender (1996) attempted to develop a principal efficacy measure that assessed perceived self-efficacy and perceived school efficacy in pupil- and school-oriented tasks. School efficacy was differentiated from collective teacher efficacy in that collective efficacy is conceived as a school characteristic, while perceived school efficacy was postulated to be a characteristic of the individual. While their instrument demonstrated some validity, it resulted in the unsurprising results that teachers were more concerned with pupil-oriented tasks while principals attended to and had a higher sense of efficacy for school-oriented tasks. Neither the validity of this conceptualization nor this measure of it has been demonstrated.

A third measure of principal efficacy was proposed by Dimmock and Hattie (1996). This measure used vignettes of situations a principal might face in schools. The dozen vignettes were arranged in six areas of principal functioning: school development planning; teaching, learning and curriculum; managing staff; budgeting; managing parents; and managing the environment. This measure seemed to be the most promising of the three extant measures and so was selected for examination, along with two new measures developed during the course of this study.

Methodology and results

Three studies were conducted in the search for a reasonably valid and reliable measure to capture principals' sense of efficacy. In the first, an adaptation of an existing measure of principal sense of efficacy developed by Dimmock and Hattie (1996) was tested. In the second study, a measure of principal sense of efficacy based on the Goddard *et al.* (2000) measure of collective teacher efficacy was examined, and in the third study, a measure modeled on the teacher sense of efficacy scale (TSES) (Tschannen-Moran and Woolfolk Hoy, 2001) was tested.

Study one

The measure of principals' sense of efficacy used in this study was a series of vignettes, adapted from a measure developed in Australia by Dimmock and Hattie (1996). The items were adapted to better suit the situations that principals might face in the American educational context[1]. Responses to the nine vignettes were along a ten-point scale anchored at "Totally Not Confident" at one extreme and "Totally Confident" at the other.

Sample items include the following.

- A small, yet influential and articulate group of faculty members resists all attempts to implement the school's agreed upon objectives.
- As principal, you, together with the faculty have decided to introduce more peer tutoring and cooperative small group student learning across the school. Many parents are opposed to this idea.
- An examination of budgetary spending in mid-year reveals that the school is spending more on most of its budget categories. Approximately half of the faculty support cutbacks in expenditures, while the other half do not. Instead, they urge you to find the money in spite of the fact the superintendent is adamant that your budget is fixed for this year.

Sample and data collection

The sample of this study was 104 high school principals and assistant principals from public high schools across Ohio. The respondents were primarily male (85 percent) and white (95 percent). The schools that participated included a mix of urban, suburban, and rural schools from diverse geographic areas of the state and were fairly representative of the state in terms of socio-economic status, urban-rural context, and size. Using standardized statewide scales with a mean of zero, the mean school SES in our sample was -0.01 , and on an urban to rural continuum, the mean for our sample was -0.03 . The average school size for the state was 785 and the average for our sample was 727. One hundred and forty-nine high schools were invited to participate, and 97 agreed, for a response rate of 65 percent.

A team of researchers contacted high school principals over phone and invited them to participate in this study. A total of 152 schools were contacted and of those, 97 agreed to participate in the study, for a response rate of 64 percent. Those who agreed were visited by a researcher who arranged to administer the principal efficacy surveys along with faculty surveys beyond the scope of the present study during a regularly scheduled faculty meeting. Participants were told the purposes of the study and assured that their responses would be kept confidential.

Results

Data were analyzed by conducting a factor analysis using principal axis factoring with Varimax rotation. The results were disappointing. The communalities were quite low, ranging from 0.21 to 0.44. Only four of the nine items reached a minimally acceptable level of 0.40. Two factors explained 52 percent of the variance, with factor loadings ranging from 0.43 to 0.83, although on the whole, the loadings were low, with four of the nine at 0.52 or lower. The Cronbach's alpha reliability for the nine-item instrument was 0.77, but the item-total correlations were low, ranging from 0.34 to 0.61. The researchers concluded that this instrument was of insufficient stability and reliability to prove useful for future study.

Study two

The second measure of Principals' Efficacy tested was based on an adaptation of Goddard *et al.* (2000) measure of collective teacher efficacy. The 22 items assessed both analysis of the task and personal capability. Participants responded along a six-point Likert scale, anchored at 1 = strongly disagree and 6 = strongly agree. Sample items include:

- I have the skills needed to be an effective principal;
- I can motivate difficult teachers to support the school;
- Leading is more difficult at this school because of concerns about people's safety;
and
- The quality of support in this district really facilitates my leadership.

Sample and data collection

The sample of this study included the 104 Ohio high school principals described in Study One as well as an additional 53 middle school principals and assistant principals in Virginia. The principals were recruited in much the way they were in study one,

where schools were invited via telephone contact to participate in a larger study that included surveying of teachers as well as the principal during a regularly-scheduled faculty meeting. Of the middle school leaders, 54 percent were male, and 46 percent were female. The racial composition was somewhat more mixed than the Ohio sample, with 71 percent white, 27 percent black and 2 percent other. Most were principals (58 percent), 37 percent were assistant principals, and 5 percent held other administrative roles. The respondents had a mean of 9.5 years of administrative experience, and had been in their current schools an average of 4.7 years.

Results

The data were submitted for a factor analysis using principal axis factoring with Varimax rotation. The results again were disappointing. Communalities ranged from 0.21 to 0.65 with eight falling below 0.40. Seven factors emerged, that explained 65.85 percent of the variance, but the three strongest factors only explained 42 percent of the variance. The first factor had four items, with factor loadings from 0.50 to 0.78. This factor concerned the ability to motivate teachers (I am confident I will be able to motivate teachers in the school; I have what it takes to get teachers in this school to succeed with students). The second factor had just two items, concerning having the preparation and skills to do the job (I will be well-prepared to lead this school; I have the skills needed to be an effective principal.). Factor loading were 0.74 and 0.85. The third factor had four items that each had to do with environmental factors that facilitated the work of the principal (The quality of support in this district really facilitates my leadership; Home life provides so many advantages for students that teachers here are bound to succeed). Cronbach's alpha for reliability for the 22 items was 0.79. The researchers determined that this attempt, as well, did not make for a sufficiently valid and reliable measure of principals' sense of efficacy.

Study three

After two disappointing attempts, the researchers decided to develop a new measure of principals' sense of efficacy modeled on the TSES (Tschannen-Moran and Woolfolk Hoy, 2001). Construct validity was assessed using a measure of work alienation (Forsyth and Hoy, 1978) and principals' trust in teachers and clients (Tschannen-Moran and Gareis, 2004). The impact of gender, school size, and school context on principals' self-efficacy beliefs were also examined. There have been mixed results in previous research concerning demographic variables. Dimmock and Hattie (1996) found no significant relationships and found that efficacy beliefs are unrelated to socio-economic characteristics of the school. On the other hand, Smith *et al.* (2003) found that female principals, those in larger schools, and those with larger proportions of students receiving free and reduced-price lunches had stronger self-efficacy beliefs.

The principal sense of efficacy scale (PSES)[2]. PSES was adapted from a measure of teacher efficacy developed by Tschannen-Moran and Woolfolk (2001). Based on the model of teachers' sense of efficacy presented by Tschannen-Moran *et al.* (1998), TSES sought to capture teachers' assessment both of their level of competence and of the difficulty of the task. The instructions directed the participants to "Please respond to each of the questions by considering the combination of your current ability, resources, and opportunity to do each of the following in your present position." All items began

with the sentence stem “In your current role as principal, to what extent can you...” The nine-point scale anchored at: 1 = none at all, 3 = very little, 5 = some degree, 7 = quite a bit, and 9 = a great deal. Sample items include: In your current role as principal, to what extent can you...”

- facilitate student learning in your school?
- generate enthusiasm for a shared vision for the school?
- foster productive communication with parents?
- handle the time demands of the job?

Development of the Instrument. The PSES was developed as an adaptation of the TSES measure presented by Tschannen-Moran and Woolfolk Hoy (2001). Initially, 50 items were generated to tap various aspects of principals' work. These items, based largely on the professional standards articulated by the Interstate School Leaders Licensure Consortium (ISLLC), were then submitted to a panel of experts that included three professors of educational leadership and one practicing superintendent, for review and refinement. Next, the instrument was field tested with ten former principals to check for the clarity of directions, appropriateness of the items and response scale, and any other observations or feedback they were willing to share.

Work alienation scale. Discriminant validity for principals' sense of efficacy was measured using a survey of work alienation because alienation was presumed to be conceptually distinct and negatively related to principals' sense of efficacy. Work alienation is defined as “the extent to which individuals fail to experience intrinsic pride or meaning in their work” (Forsyth and Hoy, 1978, p. 85). This five item measure made use of a six-point Likert scale, anchored at 1 = strongly disagree and 6 = strongly agree.

Demographic variables. In addition to the PSES, participants were asked to respond to 21 questions concerning aspects of their school, preparation, and personal characteristics. These included the level (elementary, middle, or high) and context (urban, suburban, or rural) of the school, the approximate proportion of students who received free and reduced-price lunches, and the predominate racial composition of the community in which the school is situated. Principals were asked to rate the quality of the facilities, resource support, and support from the superintendent, central office, teachers, support staff, parents, and students. Personal characteristics included gender, race, years served as a school administrator, years served at the current school assignment, quality of their formal preparation for the principalship, and whether they would become a principal if they had the chance to begin their career again.

Sample and data collection

The sample of this study was 544 principals from public schools across Virginia. A total of 1,925 surveys were mailed to all principals of public elementary, middle, and high schools in Virginia listed on the Department of Education Web site. After two weeks, reminder postcards were mailed to the entire sample, thanking them if they had returned the surveys or encouraging them to do so if they had not. The response rate of 28 percent was disappointing but not surprising, given the length of the survey and the time pressures principals were experiencing due to accountability measure within the state.

Results

Using principal axis factor analysis the 50 original items of the PSES were reduced to a scale with 18 items. Items that were removed had a communality of less than 0.30, loaded on more than one factor, or a factor loading on one of the three principle factors of less than 0.40. Three subscales or factors emerged. The first factor included six items that centered on self-efficacy to handle the management aspects of the job (e.g. handle the paperwork required of the job; prioritize among competing demands of the job; shape the operational policies and procedures that are necessary to manage your school). Factor loadings ranged from 0.53 to 0.82. The second factor included six items that had to do with self-efficacy for instructional aspects of the principalship (e.g. create a positive learning environment in your school; facilitate student learning in your school; generate a shared vision for the school). Factor loadings ranged from 0.45 to 0.81. The third factor included six items that we labeled self-efficacy for moral leadership (e.g. promote ethical behavior among school personnel; promote school spirit among a large majority of the student population; promote a positive image of your school with the media). Factor loadings ranged from 0.42 to 0.78 (Table I).

Next, we tested construct validity by correlating the PSES to other known constructs to see if the anticipated relationships would emerge. As predicted, principals' sense of efficacy was significantly negatively related to work alienation ($r = -0.45, p < 0.01$) and positively correlated to both trust in teachers ($r = 0.42, p < 0.01$) and trust in students and parents ($r = 0.47, p < 0.01$) (Table II).

Similar to the findings of Dimmock and Hattie (1996), gender and the socio-economic status of the students of the school had no significant relationship to principal's sense of efficacy. Race was only slightly related, with white principals having slightly higher sense of efficacy than black principals ($r = 0.09, p < 0.05$). The number of years they had spent as a principal or the tenure in their current school were not significantly related to their sense of efficacy. When asked whether they would become a principal if they had it to do all over again, the more efficacious principals were somewhat more likely to say that they would ($r = 0.17, p < 0.01$) (Table III).

Discussion

The issue of how to capture efficacy beliefs as a context-specific construct in a way that will nonetheless allow for comparisons across contexts is a thorny one. Vignettes were employed in the Dimmock and Hattie (1996) measure, and adapted to the American context in the first study reported in this paper. Vignettes have also been tried as a strategy for capturing teachers' sense of efficacy, asking teachers to make judgments as to their effectiveness in handling various situations they might encounter in their classrooms (Ashton *et al.*, 1984). In both instances, this strategy was found to be problematic. The teachers' vignette measure did not stand up to statistical testing and faded from use after the original study. We suspect that the principal's vignette measure will meet the same fate.

Another attempt at capturing principals' sense of efficacy was described in the second study reported. This measure was devised to capture both principals' assessment of the capabilities they brought to the task, as well as their assessment of the difficulty of the task. A problem emerged with this measure because when the difficulty of the task was measured as a separate dimension in an index, it was found

Principals' sense of efficacy

| PSES | Factor 1 | Factor 2 | Factor 3 |
|--|----------|----------|----------|
| Efficacy for management | | | |
| Handle the time demands of the job | 0.82 | 0.11 | 0.11 |
| Handle the paperwork required of the job | 0.73 | 0.14 | 0.19 |
| Maintain control of your own daily schedule | 0.70 | 0.20 | 0.22 |
| Prioritize among competing demands of the job | 0.63 | 0.27 | 0.26 |
| Cope with the stress of the job | 0.57 | 0.21 | 0.19 |
| Shape the operational policies and procedures that are necessary to manage your school | 0.53 | 0.15 | 0.30 |
| Efficacy for instructional leadership | | | |
| Motivate teachers | 0.15 | 0.81 | 0.20 |
| Generate enthusiasm for a shared vision for the school | 0.15 | 0.79 | 0.18 |
| Manage change in your school | 0.25 | 0.67 | 0.19 |
| Create a positive learning environment in your school | 0.17 | 0.64 | 0.29 |
| Facilitate student learning in your school | 0.22 | 0.62 | 0.21 |
| Raise student achievement on standardized tests | 0.17 | 0.45 | 0.32 |
| Efficacy for moral leadership | | | |
| Promote acceptable behavior among students | 0.20 | 0.26 | 0.78 |
| Promote school spirit among a large majority of the student population | 0.18 | 0.24 | 0.71 |
| Handle effectively the discipline of students in your school | 0.21 | 0.17 | 0.59 |
| Promote a positive image of your school with the media | 0.21 | 0.25 | 0.56 |
| Promote the prevailing values of the community in your school | 0.36 | 0.22 | 0.51 |
| Promote ethical behavior among school personnel | 0.38 | 0.29 | 0.43 |

Notes: *N* = 544; Factor 1: Eigenvalue = 7.4; Cumulative percent of variance explained = 41.12; Factor 2: Eigenvalue = 1.9; Cumulative percent of variance explained = 51.84; and Factor 3: Eigenvalue = 1.4; Cumulative percent of variance explained = 59.64

Table I.
Factor loadings for the PSES (Study 3)

| | 2 | 3 | 4 | 5 | 6 | 7 |
|---|--------|--------|--------|--------|--------|--------|
| Principal sense of efficacy | 0.79** | 0.86** | 0.85** | 0.45** | 0.42** | 0.47** |
| PSE for instruction | | 0.46** | 0.58** | 0.41** | 0.44** | 0.39** |
| PSE for management | | | 0.58** | 0.37** | 0.27** | 0.33** |
| PSE for moral leadership | | | | 0.37** | 0.37** | 0.49** |
| Work alienation | | | | | 0.37** | 0.44** |
| Principal trust in teachers | | | | | | 0.48** |
| Principal trust in students and parents | | | | | | |

Notes: *N* = 544, **p* < 0.05, and ** *p* < 0.01

Table II.
Correlations between principal sense of efficacy and validity variables

that the index of task difficulty artificially drove down the efficacy score for anyone who acknowledged working in a more difficult environment, whether or not that person felt he or she had the skills and motivation to meet the challenges for the task or not.

The strategy employed by the third measure to capture the context-specific nature of self-efficacy beliefs was to embed the context of each of the questions through the directions (“Please respond to each of the questions by considering the combination of your current ability, resources, and opportunity to do each of the following in your present position.”) and the sentence stem for each of the items (“In your current role as principal, to what extent can you. . .”). This strategy proved to be reasonably successful in making the instrument context specific without sacrificing the ability to make comparisons across contexts.

This instrument will need further testing, especially in light of the low response rate on the third study, but it is the most promising of the three approaches attempted. Future studies should include factor analysis to explore whether the factor structure found in this study is stable across studies in other populations. One interesting test of the construct validity of this instrument would be to use it in conjunction with an established measure of leadership functioning that assesses both task and relationship dimensions of leadership.

Implications

Principals’ efficacy beliefs to influence the level of effort and persistence they put forth in their daily work, as well as their resilience in the face of setbacks. It is not enough to hire and retain the most capable principals – they must also believe that they can successfully meet the challenges of the task at hand. Bandura (2000) explained that “when faced with obstacles, setbacks, and failures, those who doubt their capabilities slacken their efforts, give up, or settle for mediocre solutions. Those who have a strong belief in the capabilities redouble their effort to master the challenge” (p. 120). With the role of the school principal being increasingly defined in terms of academic achievement and success as measured by high-stakes assessment results, a principal’s sense of efficacy plays a critical role in meeting the expectations and demands of the position.

At the heart of the theoretical rationale explaining the relationship observed between principals’ sense of efficacy and their performance, use of power, and coping strategies, is Bandura’s (1997) theory of triadic reciprocal causation. Triadic reciprocal causation focuses attention of the interaction between internal and external factors at work in a leadership context. Principals’ behavior is influenced by their internal thoughts and beliefs, but these beliefs are shaped by elements – including other individuals – in the environment.

| | 2 | 3 | 4 | 5 | 6 | 7 |
|------------------------------------|------|-------|--------|--------|--------|--------|
| PSES | 0.04 | 0.09* | 0.00 | 0.02 | 0.08 | 0.17** |
| Gender | | 0.03 | 0.05 | 0.13** | 0.23* | 0.02 |
| Race | | | 0.28** | 0.06 | 0.09* | 0.02 |
| SES of school population | | | | 0.06 | 0.16** | 0.06 |
| Years at this school | | | | | 0.64** | 0.03 |
| Years of administrative experience | | | | | | 0.02 |
| Would you do it again? | | | | | | |

Notes: *N* = 544, **p* < 0.05, and ***p* < 0.01

Table III.
Correlations between
principal sense of efficacy
and demographic
variables

Enhancing leadership self-efficacy should be an important objective for those responsible for improving the quality of leadership in school. Social cognitive theory provides guidance about practical implications for the preparation and professional development of school principals in order to equip them with the capabilities and a resilient sense of efficacy that will enable them to enhance both their well being and accomplishments. Training program structures should include mastery experiences, role plays, and positive persuasory messages to enhance novice principals' task-specific efficacy perceptions (Gist and Mitchell, 1992). While mastery experiences are the most powerful efficacy changing forces, they may be the most difficult to deliver to a low-efficacy principal.

Bandura (2000) proposes three specific approaches for developing self-efficacy in managers. First is guided mastery, which includes instructive modeling to acquire a skill or competency, guided skill perfection, and then transfer of the training back to the job context to ensure self-directed leadership success. Second is cognitive mastery modeling in order for the novice leaders to learn thinking skills and how to apply them by observing the decision rules and reasoning strategies used by successful models as they arrive at solution to problems and make effective decisions. The third strategy is self-regulatory competences using self-monitoring, self-efficacy appraisal, personal goal setting and the use of self-motivation incentives.

The study of principals' self-efficacy beliefs is a promising new line of research. Both antecedents to a robust sense of efficacy, as well as the outcomes related to strong efficacy beliefs of school leaders are likely to be fruitful avenues of study. This research will be facilitated by having a reasonably valid and reliable measure to capture this important construct. The PSES provides a promising means to capture what has heretofore been an elusive construct.

Notes

1. The authors wish to thank Wayne Hoy for his assistance in making this adaptation.
2. The instrument is copyrighted by the authors, however, there are no copyright restrictions on the instrument for use in scholarly research and for non-profit educational purposes.

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