

# Knowledge of Effective Educational Leadership Practices

*This manuscript has been peer-reviewed, accepted, and endorsed by the National Council of Professors of Educational Administration (NCPEA) as a significant contribution to the scholarship and practice of school administration and K-12 education.*



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

## INTRODUCTION

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

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preservice school leader candidates' completion of the administrative credential program inclusive of fieldwork on their level of knowledge of leadership practices based on a pre post self-assessment.

Knowing what to do and how to promote the success of all students can appear elusive to those preparing to assume school leadership roles. Principal preparation programs provide candidates with the knowledge and skills of effective school leaders, but are candidates able to apply what they learn to school leadership practice? The research literature provides many lists of the practices and characteristics of effective instructional leaders. In their meta-analysis of over 300 studies regarding school leadership as practiced by principals, Marzano, Waters, & McNulty (2005) developed a list of 21 categories of behaviors (responsibilities) of school leaders, such as *knowledge of current curriculum, instructional, and assessment practices*, that were found to be positively correlated to student achievement. In synthesizing the research on principals' behaviors associated with student outcomes, Cotton (2003) described 26 behaviors of principals of high achieving schools; among those were the *importance of shared leadership* and *focusing on instruction*. Among the 10 traits of principals considered to be highly effective (McEwan, 2003) was that of an educator – “a self-directed instructional leader with a strong intellect and personal depth of knowledge regarding research-based curriculum, instruction and learning who motivates and facilitates the intellectual growth and development of self, students, teachers and parents (p. xx).” The importance of knowledge mentioned in these and other lists is exemplified in national and state adoptions of skills school leaders need in order to be effective.

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

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

need to become effective school leaders. Programs are accountable for providing real-world practice in authentic school settings.

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

## **Research Questions**

This analysis sought to answer three questions:

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

## **METHODOLOGY**

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

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

## **The Instrument**

*The Candidate Inventory of Personal Leadership Competence* consists of 58 items divided into six parts, one for each CPSEL standard, and contains 9 - 11 specific leadership activities or roles for which students are to indicate their current level of

experience and knowledge. Candidates are asked to rate themselves on their knowledge of leadership skills based on a scale of 1 to 4 with “1” representing little or no knowledge; “2” meaning minimal level of knowledge; “3” representing considerable knowledge with room to grow; and “4” indicating a high level of knowledge. In constructing the instrument, the list of activities was based on a variety of print and online sources related to the CPSELs. Examples from the inventory to which candidates rated their level of knowledge in promoting the success of every student follow:

**CPSEL Standard 1 - Vision of learning** (development, articulation, and stewardship of a vision of learning that is shared and supported by all stakeholders):

- *Explain how vision and mission affect learning.*
- *Develop a survey to determine teacher buy-in to the vision.*

**CPSEL Standard 2 - Culture, instructional program** (advocating, nurturing, and sustaining a school culture and instructional program conducive to student learning and staff professional growth):

- *Develop and deliver an in-service program on creating a motivating learning environment for students.*
- *Articulate the components of a positive school culture and instructional program.*

**CPSEL Standard 3 - Organizational management... effective learning environment** (ensuring management of the organization, operation, and resources for a safe, efficient, and effective learning environment):

- *Describe the components of a motivating learning environment for students.*
- *Identify ways to increase opportunities for school leadership.*

**CPSEL Standard 4 - Collaboration... diverse community needs** (collaborating with faculty and community members, responding to diverse community interests and needs, and mobilizing community resources):

- *Work with diverse family and community groups*
- *Plan and deliver a presentation that involves technological application to share summative and formative data.*

**CPSEL Standard 5 – Integrity, fairness ... ethics:** (acting with integrity, fairness, and in an ethical manner):

- *Participate in the negotiation of the teachers’ contract on instructional issues.*
- *Assist in planning a character education program for students.*

**CPSEL Standard 6 - Influencing political, social, economic, legal, and cultural context** (understanding, responding to, and influencing the political, social, economic, legal, and cultural context):

- *Recognize the political, social, and cultural contexts surrounding educational research and their influence on how research is interpreted.*
- *Locate library and web resources to access current and reliable research.*

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

### **Population**

The population consisted of 82 preservice school leader candidates enrolled in the administrative credential program at California State University Fullerton between 2008 and 2012. Thirty-five 35 of these candidates worked in high schools and 30 in elementary schools; five were district employees or Teachers on Special Assignment (TOSA), and 12 were on middle school campuses. Forty percent of the population had less than five total years of experience (TYE) and 25 percent had 10 or more years.

### **Data Analysis**

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

## **RESULTS**

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

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

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

Mean differences are useful in making group comparisons, but individual differences can be hidden by only reporting means. Of interest was whether the reported gains/losses varied or tended to be consistent among all candidates. In order to answer this question, a matched score comparison was conducted and the frequency distributions of individual candidate's mean response differences for each standard were computed. The question asked was, what was the magnitude of this change and was growth evenly or disparately

distributed? Measuring growth using one full scale point did not discriminate sufficiently to answer the second research question regarding distribution. Therefore, growth was examined by .5 scale score point increments providing a range of <.5 to  $\geq 2.0$  full scale points. Table 2 displays the findings from this analysis.

Table 1

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

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

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

Table 2

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

California Professional Standards for Educational Leaders N=82	Differences in Pre to Post Assessment (Scale 4 – 1, High to Low)					Total $\geq 1.0$ %
	<.5 %	.5 - .99 %	1.0–1.5 %	1.51–1.99 %	$\geq 2.0$ %	
6. Influencing political, social, economic, legal, and cultural context	22	15	34	17	12	63
5. Fairness, integrity... ethics	23	17	30	20	10	60
3. Organizational management...effective learning environment	26	18	32	18	6	56
4. Collaboration... diverse community needs	27	27	27	17	2	46
1. Vision of learning	26	32	28	9	5	42
2. Culture, instructional program	34	28	24	9	5	38

Note: Percentages may exceed 100 due to rounding

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

The six standards from highest to lowest according to the percentage of fieldwork participants indicating growth of at least one scale score point (1.0) between pre and post self-assessment of knowledge are displayed in Table 2. In three areas more students reported significant growth in their level of knowledge than in the other three areas: Standard 6 – influencing political, social, economic, legal, and culture context (63%); Standard 5 – Fairness, integrity...ethics (60%); and Standard 3 – Organizational management...effective learning environment (56%).

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

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

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

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

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

Note: Scale from High to Low, 4 – 1

As shown in the final column, the group reporting the total greatest mean gains in knowledge (1.24) were those with the most experience ( $\geq 10$  years) relative to CPSEL 5 - *an instructional leader promotes the success of every student by acting with integrity, fairness, and in an ethical manner*. With 18 points of comparison, three TYE ranges for each of the six standards, only four comparisons differed by more than .1 of a scale point. The least amount of growth in four of the six CPSEL standards between pre and post levels of knowledge occurred among candidates with 5-9 TYE: Standard 2 - culture, instructional program ; Standard 4 - collaboration...diverse community needs; Standard 1 - Vision of learning; and Standard 5 - fairness, integrity...ethics. Candidates with 1-4 TYE reported the least amount of growth in the other two CPSELS: Standard 3 - Organizational management...effective learning environment; and Standard 6 - Influencing political, social, economic, legal, and cultural context.

## CONCLUSIONS AND DISCUSSION

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

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

The same conclusion can be applied to two other standards, Standard 1 (*development, articulation, and stewardship of a vision of learning that is shared and supported by all stakeholders*) and Standard 4 (*collaborating with faculty and community members, responding to diverse community interests and needs, and mobilizing community resources*). Given the high percentage of classroom teachers who populate the administrative credential program, it would be expected that their knowledge of visions



based on student learning and working with diverse students and their families would not significantly increase through fieldwork and coursework. In terms of Standard 1, schools have had to become more focused on student achievement and using data to drive decisions regarding how students learn best; in an age of accountability and the national attention on leaving none of the children behind, conscientious educators have had to become more active stewards of their role in fulfilling their vision for learning of all children in their schools.

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

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

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

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

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

Having used this instrument for four years with entering administrative credential candidates has provided ample opportunities for purposeful evaluation. It is time to revise the instrument soliciting feedback from practicing school leaders. Soliciting their responses to questions such as *what skills and competencies do preservice school leader need to learn? What experiences will strengthen their transitions from the classroom to the front or district office?* can serve to strengthen the fieldwork, courses offered, and class assignments better preparing them for future leadership positions.

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

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