RURAL PRINCIPAL LEADERSHIP SKILL PROFICIENCY
AND STUDENT ACHIEVEMENT

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Because of the importance of developing highly skilled rural school leaders, statewide assessments of 259 rural Texas public school administrators were analyzed to determine principal confidence levels in leadership skill domains identified by the National Policy Board of Educational Administration (NPBEA). Important findings indicate differences exist between rural principal skill sets in relation to campus student academic achievement as measured by state accountability ratings. Leadership skills of rural principals from schools with the state’s highest student academic ratings differed from principals at lower rated rural schools.
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The literature related to the rural principalship focuses on three challenges: retention of effective principals, community relations, and pressure to meet standards with limited resources. Thus, there is a great need for effective, skilled leaders in rural schools. Recruiting and retaining quality principals is a challenge for rural districts. Studies indicate that principal turnover rates in rural schools are comparable to those of urban schools, both greater than turnover rates found in suburban schools (Bainbridge, Lassley, & Sundre, 2003; Balfanz & MacIver, 2000).

Administrative stability, a factor related to student achievement (Partlow & Ridenor 2008), might account for lower academic achievement in urban and rural schools as compared to that of suburban schools (Provasnik, KewalRamani, Coleman, Gilbertson, Herring, & Xie, 2007). Rural principals are generally paid less, asked to assume a greater number of responsibilities, and face greater community scrutiny than their urban and suburban counterparts (Arnold, Gaddy, & Dean, 2004). Community resistance, geographic isolation, and economic shortages also create difficulties when rural principals implement special education services (Cruzeiro & Morgan, 2006). The demands of finding and retaining highly qualified teachers (HQT), who can teach multiple subjects and assure adequate yearly progress (AYP) for students in special education, add to the challenges of rural administrators (Mitchem, Kossar, & Ludlow, 2006; Jimerson, 2005). Furthermore, community resistance and lack of population diversity often impede the efforts to implement multicultural education (McCray, Wright, & Beachum, 2004).

Twenty five years of educational research (Marzano, Waters, & McNulty, 2005; Lesotte, 1992, 1991; Reynolds, 1990; Edmonds, 1979), confirms that quality school leadership is essential for rural public school success. School leadership is second only to classroom
instruction in influencing student achievement (Leithwood, Louis, Anderson, & Wahlstrom, 2004). Furthermore, countries worldwide have recognized that as school administrator responsibilities expand, the need to cultivate school leadership increases (Olson, 2008). Consequently, it is essential to quantify the public school administrator’s current leadership ability and develop appropriate training to enhance skills in need of improvement. The rural public school review completed by Arnold, Gaddy, and Dean (2004) describes a lack of information related to the professional development needs of rural public school administrators. Geographically isolated and burdened with greater responsibilities, rural administrators may require different knowledge and skills than their urban and suburban counterparts. Even among rural principals, unique community characteristics may require different leadership skills.

Arnold, et al. (2004) call for studies that seek to discover what knowledge and skills are most needed by rural administrators for the purpose of providing focused professional development. Warren and Peel (2005) found that by partnering with university programs, rural schools can effectively develop focused leadership support and training. Targeting specific leadership skills related to student achievement might provide university principal preparation programs and public school district staff development programs with a focus for future development of effective leaders. Ultimately, this emphasis may improve student achievement and school performance in rural schools.

Purpose of the Study

Because of the importance of developing highly skilled rural school leaders, this study attempted to identify the leadership skills of practicing rural administrators and determine whether these skills were related to student achievement.

Review of Literature
Rural School Demographics

Rural principals work in schools that are demographically different than those in urban and suburban communities. Data collected from 2002-2005 by the National Center for Education Statistics (NCES) show that a third of all public schools are found in rural areas, but their enrollment represents only one fifth of the nation’s public school student population. Additional findings indicate that although rural schools enroll a larger percentage of White or American Indian/Alaska Native students, they enroll a smaller percentage of Black, Hispanic and Asian/Pacific Islander students than do urban or suburban schools. Likewise, a smaller percentage of rural school teachers are racial/ethnic minorities. English proficiency is found in greater percentages in rural than in either suburban or urban schools. Economically, NCES found 38% of rural students are eligible for free or reduced lunch, while 45% attend moderate-to-high poverty schools (Provasnik, et al., 2007).

Rural communities generally offer fewer educational opportunities for students. For instance, fewer rural students per capita attend prekindergarten classes and schools are less likely to have advanced placement, International Baccalaureate courses, or Internet access. Nevertheless, according to NCES data, academically, rural students outscore urban children on National Assessment of Educational Progress (NAEP) assessments. On the other hand, rural students score below suburban students. In addition, rural students’ freshman graduation rate (75%) is higher than that of urban students (65%), but lower than that of suburban students (79%), while dropout rates in rural schools (11%) are higher than suburban (9%) and lower than urban (13%) rates (Provasnik, et al., 2007).

Rural schools receive a smaller percentage of revenue from the federal government, yet spend more per student than either urban or suburban schools. Rural schools are also more likely
Rural Principal Skills and Student Achievement

to have a smaller ratio between students and teachers, counselors, social workers, and special education specialists. There are fewer serious student behavior problems per capita and a larger percentage of teachers report satisfaction with teaching conditions in rural schools. In addition, rural parents are more likely to attend rural school events and take their children to athletic events (Provasnik, et al., 2007).

Rural parents are more likely than urban or suburban parents to have completed a high school diploma as their highest educational attainment. On the other hand, parents of rural school children (as compared to urban and suburban parents), are more likely to expect a bachelor’s degree as their children’s highest educational attainment. Despite these expectations, NCES reports that only 13% of rural residents acquire bachelor’s degrees (as their highest educational attainment) compared to 17% nationally (Provasnik, et al., 2007).

As the NCES data clearly show, rural campuses are unique. Because their roles and challenges are different, rural school principals may require specialized leadership skills that differ from those required of their urban and rural counterparts.

Principal Effect on Student Achievement

Studies in the U.S. from the last 40 years overwhelmingly support the notion that if a school has an effective principal, students are more likely to achieve academically (Cotton, 1995; Lezotte, 1992). A review of studies conducted worldwide (Hallinger & Heck, 1996) found similar results. In a definitive review of thirty years of research on the role of the principal in student achievement, Marzano, Waters, and McNulty (2005) found both a practical and statistical significance in the relationship between student achievement and the quality of school leadership.
The importance of effective leadership is also recognized within the public school community, in spite of the difficulty in identifying and assessing the composite required skills. According to Rammer’s (2007) findings, superintendents recognize the crucial role effective principals play in the development of schools even though they have no effective means of assessing those skills in potential administrative candidates. Likewise, Hallinger, Bickman, and Davis (1996) report that parents and teachers believe principals make a difference in the achievement of students and the learning environment.

Findings from these studies suggest that even when it is difficult to discern which skills are requisite to effective leadership, there is little doubt among researchers or stakeholders that effective leadership positively affects student achievement.

**Principal Assessment**

Findings from research confirm that principal effectiveness is important, yet there is no consistent or formalized method for identifying the most highly skilled principals. As noted in Rammer’s (2007) study for example, superintendents’ belief in the value of particular leadership characteristic does not guarantee that they have available tools to correctly assess these skills in potential employees. Adding to the complexity of assessment, findings from a study of new principals (Daresh, 2007) suggest it is not until principals become comfortable with the management of the school that they begin to consider critical instructional issues. Furthermore, new principals are likely to assess their own performance in terms of management skills. Baxter (2008) posits this may result from university-based principal preparation programs that apply a business manager metaphor to public school administration rather than one of community leader and public servant. Adding to the complexity of principal assessment, Anagnostopoulus and Rutlege (2007) found that when schools face state and district sanctions for low performing...
schools, sanctions rather than best practice have become the focus of school administrators. Additional findings suggest that, in this atmosphere, administrators are more likely to resort top-down managerial skills rather than collaborative instructional leadership skills. Another disconnect from instructional leadership may result from fewer (from 15% to 5%) principals coming to administration directly from the classroom. (“The Changing Face of Principals”, 2008).

The convergence of these factors does little to guarantee quality leadership or stem rural school failure. In spite overwhelming evidence of the essential role played by principals in creating effective schools, measuring leadership effectiveness has not been adequately formalized either by rural school districts or by rural principals. The following study attempted to identify the relationship between the leadership skills of rural principals and campus student achievement as measured by state accountability ratings.

Procedure

Every five years in Texas, principals are required to participate in a state-approved professional development performance assessment. Records from one such assessment, Principal Assessment of Student Success (PASS), provided the data for this study (see Appendix A). One component of the PASS assessment requires school administrators to rate themselves on 18 leadership knowledge and skill domains (see Appendix B) identified by Thompson (1993) and adopted by the National Policy Board of Educational Administration (NPBEA). PASS principal self-ratings from 2006 to 2008 were used to determine which NPBEA skills predominated among Texas rural administrators in terms of student achievement as measured by the state of Texas public school accountability ratings Academically Acceptable (AA), Recognized (R) or Exemplary (E) (see Appendix C).
PASS NPBEA skills were divided into four domains and ranked by principals within each domain: functional domain (seven skills), programming domain (six skills), interpersonal domain (four skills), and contextual domain (one skill). The 18 NPBEA skills were not ranked overall (1-18). Partial data for two skills (Implementation and Delegation) within the functional domain were incomplete due to a malfunction in the database and were omitted. Furthermore, because only one skill was listed in the contextual domain (Legal and Regulatory Applications), it could not be ranked and, therefore, was also omitted.

In addition, PASS data provided assessments from teams (two assessors per principal) as to the predominant NPBEA skills exhibited by each rural principal. PASS assessors were recruited among veteran campus and central office administrators, as well as from university educational leadership departments within the state of Texas. Sampled principals provided evidence of their job performance in a variety of ways (campus improvement plan, state accountability data, Adequate Yearly Progress (AYP), phone interview, teacher performance data, and student performance data). Based on this evidence, assessors cooperatively identified each principal’s NPBEA leadership strengths. The top three skills identified by assessors for all principals sampled were tallied and categorized in terms of student achievement as measured by campus accountability ratings (AA, R, or E).

Finally, to identify the relationship between the leadership skills of rural principals and campus student achievement, NPBEA skills self-identified by sampled principals were compared to NPBEA skills identified by assessors within student achievement categories as measured by campus accountability ratings (AA, R, or E). Because NPBEA skills Implementation, Delegation, and Legal and Regulatory Applications were omitted from the data set of principal
self-rankings, they could not be compared to corresponding ratings by assessors. Consequently, it was decided to remove ratings of those three skills from the assessor data set as well.

**Participants**

PASS data accessed from principal assessments conducted throughout Texas from 2006 through 2008 yielded records of 259 rural school principals, representing 41.7% (108) elementary, 24.3% (63) middle, and 34% (88) high school campuses.

Table 1

**Frequency Counts and Percentages of Texas Accountability Ratings by Rural School Type (N=259)**

<table>
<thead>
<tr>
<th></th>
<th>Academically Acceptable (AA)</th>
<th>Recognized (R)</th>
<th>Exemplary (E)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Count</td>
<td>Of Total %</td>
<td>Count</td>
<td>Of Total %</td>
</tr>
<tr>
<td>Rural Elementary Campuses</td>
<td>27 (18.9%)</td>
<td>10.4</td>
<td>62 (64.6%)</td>
<td>23.9</td>
</tr>
<tr>
<td>Rural Middle School Campuses</td>
<td>40 (28.0%)</td>
<td>15.4</td>
<td>23 (24.0%)</td>
<td>8.9</td>
</tr>
<tr>
<td>Rural High School Campuses</td>
<td>76 (53.1%)</td>
<td>29.3</td>
<td>11 (11.5%)</td>
<td>4.2</td>
</tr>
<tr>
<td>Total</td>
<td>143 (100%)</td>
<td>55.2</td>
<td>96 (100%)</td>
<td>37.1</td>
</tr>
</tbody>
</table>

The 259 campuses of sampled principals were identified by Texas state accountability ratings (AA, R, E; see Table 1). High schools received more Academically Acceptable (AA) ratings compared to middle school and elementary campuses with 53.1% (76), 28% (40), and
18.9% (27), respectively. Elementary campuses led in Recognized (R) ratings 64.6% (62) compared to middle and high schools 24% (23) and 11.5% (11), respectively. In addition, more elementary schools were rated Exemplary (E) as compared to high schools and middle schools by 95% (19), 5% (1), and 0%, respectively. Unequal representation of schools at each instructional level (elementary, middle and high school) within each state accountability level (AA, R, E) may have affected interpretation of study findings. However, the dispersion of these data reflects the pattern of accountability ratings in Texas. Overall, rural campuses rated Academically Acceptable (AA) were associated with 143(55.2%) of sampled principals, the largest group, while rural campuses rated Recognized (R) and Exemplary (E) were associated with 96(37.1%) and 20(7.7%) sampled principals, respectively.

Analysis

Descriptive statistics were used to calculate principal and PASS assessor rankings. Chi-square cross tabulation tables were used to determine dependence/independence by school accountability ratings and principal’s NPBEA skill ranking frequency counts per NPBEA domain. Significant differences and effect sizes were reported.

Results

Principal Self-Rankings of NPBEA Functional Domain Skills

The NPBEA functional domain skills included: Leadership, Information Collection, Problem Analysis, Judgment, Organizational Oversight, Implementation, and Delegation. As noted, the skills of Implementation and Delegation were omitted due to missing data. Principals ranked themselves on functional domain skills using a seven point scale. Rankings were categorized as skills in which principals were Less Confident (ranks 5- 7), Confident (rank 4), or Most Confident (ranks 1- 3). Categorized rankings were then sorted by campus state
accountability ratings: Academically Acceptable (AA), Recognized (R), and Exemplary (E) as seen in Table 2.

Table 2

*Frequency Counts and Percentages: Texas Accountability Ratings by Principal Ranked NPBEA*

*Functional Domain Skills (N=259)*

<table>
<thead>
<tr>
<th>NPBEA Functional Domain Skills</th>
<th>Academically Acceptable (AA)</th>
<th>Recognized (R)</th>
<th>Exemplary (E)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leadership</td>
<td>Less Confident</td>
<td>Confident</td>
<td>Most Confident</td>
</tr>
<tr>
<td></td>
<td>25 (17.5%)</td>
<td>9 (6.3%)</td>
<td>109 (76.2%)</td>
</tr>
<tr>
<td>Information Collection</td>
<td>56 (39.2%)</td>
<td>37 (25.9%)</td>
<td>50 (35%)</td>
</tr>
<tr>
<td>Problem Analysis</td>
<td>43 (30.1%)</td>
<td>19 (13.3%)</td>
<td>81 (56.6%)</td>
</tr>
<tr>
<td>Judgment</td>
<td>23 (16.1%)</td>
<td>23 (16.1%)</td>
<td>97 (67.8%)</td>
</tr>
<tr>
<td>Organization Oversight</td>
<td>72 (50%)</td>
<td>22 (15.4%)</td>
<td>49 (34.3%)</td>
</tr>
<tr>
<td>Total Count Averages</td>
<td>43.8</td>
<td>22</td>
<td>77.2</td>
</tr>
</tbody>
</table>

*Note.* Less Confident = (ranks 5-7), Confident = (rank 4), Most Confident= (ranks 1-3); \(=\)divided by.

Frequency count averages for skills ranked Less Confident were lower than frequency counts averages for skills ranked Most Confident per campus accountability rating category.
Sampled principals assessed their skills as Most Confident, rather than Less Confident, regardless of their campus accountability rating.

Skill ranking levels (Less Confident, Confident, Most Confident) across campus accountability ratings manifested similar frequency count patterns per NPBEA skill. With the exception of Organizational Oversight and Information Collection skills, each remaining NPBEA functional domain skill was ranked Most Confident per Texas accountability rating (AA, R, E). Likewise, Organizational Oversight and Information Collection skills were ranked Less Confident among all three accountability rating categories: AA = 72/50%, R = 43/44.8%, and E = 10/50%; AA = 56/39.2%, R = 46/47.9%, and E = 11/55%, respectively. Finally, chi-square comparisons between campus accountability ratings and NPBEA functional domain skill ranking frequency counts proved non-significant.

Principal Self-Rankings of NPBEA Programming Domain Skills

The NPBEA programming domain included rankings of six skills: Instructional Management, Curriculum Design, Student Guidance and Development, Staff Development, Measurement and Evaluation, and Resource Allocation. Principals ranked themselves on the programming domain skills using a six point scale. Principal’s rankings were categorized as Less Confident (ranks 5 - 6), Confident (ranks 3 - 4), or Most Confident (ranks 1 - 2), across the six domain skills. Rankings for five of 259 rural school principals were not complete for all six skills so their rankings were omitted; only data from the remaining 254 principal skill rankings were computed. Of the five principal rankings omitted, one represented an AA rated campus and four represented E rated schools. The remaining principals represented 142/55.9% campuses with AA ratings, the largest group, while sampled principals at R and E rated campuses comprised 96/37.7% and 16/6.2%, respectively (See Table 3).
Table 3

**Frequency Counts and Percentages: Texas Accountability Ratings by Principal Ranked NPBEA Programming Domain Skills (N = 259; n=254)**

<table>
<thead>
<tr>
<th>NPBEA Programming Domain Skills</th>
<th>Academically Acceptable</th>
<th>Recognized</th>
<th>Exemplary</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Less Confident</td>
<td>Confident</td>
<td>Most Confident</td>
</tr>
<tr>
<td>Instructional Management</td>
<td>24 (16.9%)</td>
<td>39 (27.5%)</td>
<td>79 (55.6%)</td>
</tr>
<tr>
<td>Curriculum Design</td>
<td>60 (42.3%)</td>
<td>46 (32.4%)</td>
<td>36 (25.4%)</td>
</tr>
<tr>
<td>Guidance Development</td>
<td>43 (30.3%)</td>
<td>49 (34.5%)</td>
<td>50 (35.2%)</td>
</tr>
<tr>
<td>Staff Development</td>
<td>38 (26.8%)</td>
<td>53 (37.3%)</td>
<td>51 (35.9%)</td>
</tr>
<tr>
<td>Measure &amp; Evaluation</td>
<td>48 (33.8%)</td>
<td>63 (44.4%)</td>
<td>31 (21.8%)</td>
</tr>
<tr>
<td>Resource Allocation</td>
<td>67 (47.2%)</td>
<td>38 (26.8%)</td>
<td>37 (26.1%)</td>
</tr>
<tr>
<td>Total Count Averages</td>
<td>47</td>
<td>48</td>
<td>47</td>
</tr>
</tbody>
</table>

**Note.** Less Confident = (ranks 5-6), Confident = (ranks 3- 4), Most Confident= (ranks 1-2); =divided by.

Two of the six NPBEA skills in the programming domain, *Instructional Management* and *Student Guidance and Development*, were ranked Most Confident per campus accountability.
Furthermore, **Resource Allocation** skill rankings featured higher Less Confident rankings across all campus accountability ratings. **Staff Development** skill rankings also followed a similar pattern per campus accountability rating; however, in this case Confident rankings produced the highest counts. Although **Staff Development** was ranked highest at the Confident level per campus accountability rating, AA principals’ second highest ranking for **Staff Development** was Most Confident (51/35.9%), whereas R and E principals rated it Less Confident (52/24/25%, 6/37.4%, respectively).

In contrast, the skill rankings of **Curriculum Design** and **Measurement and Evaluation** differed among principals by campus accountability rating. AA and R campus principals produced highest frequency counts for **Curriculum Design** at the Less Confident ranking (60/42.3%, 52/54.2%, respectively), while principals at E rated campuses produced a highest Confident ranking (8/50%). **Measurement and Evaluation** produced higher Confident frequency counts within AA and R campus accountability ratings (63/44.4% and 38/39.6% respectively), whereas principals at E rated schools ranked this skill Less Confident (6/37/5%). Total count averages by ranking level per NPBEA skill were not unique and differed slightly within each accountability rating. Chi-square comparisons between campus accountability ratings and NPBEA programming domain skill ranking frequency counts proved non-significant or violated expectancy count assumptions.

**Principal Self-Rankings of NPBEA Interpersonal Domain Skills**

The NPBEA interpersonal domain included four skills: **Sensitivity**, **Oral and Nonverbal Expression**, **Written Expression**, and **Motivation of Others**. Principals ranked themselves on interpersonal domain skills using a four point scale. Principal rankings were categorized as Less Confident (ranks 3-4) or Most Confident (ranks 1-2) across the four domain skills. Rankings for
five of 259 rural school principals were not complete for all four skills so their rankings were omitted; only data from the remaining 254 principal skill rankings were computed. The five principal rankings omitted, all represented E rated schools. Campuses rated AA represented the largest group of principals (143/56.2%), while those rated R and E consisted of 96/37.7% and 15/5.9% of the principals, respectively (See Table 4).

Table 4

Frequency Counts and Percentages: Texas Accountability Ratings by Principal Ranked NPBEA Interpersonal Domain Skills (N=259; n=254)

<table>
<thead>
<tr>
<th>NPBEA Interpersonal Domain Skills</th>
<th>Academically Acceptable (AA)</th>
<th>Recognized (R)</th>
<th>Exemplary (E)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Least Confident</td>
<td>Most Confident</td>
<td>TOTAL</td>
</tr>
<tr>
<td>Motivating Others</td>
<td>56 (39.2%)</td>
<td>87 (60.8%)</td>
<td>143/254 (56.2%)</td>
</tr>
<tr>
<td>Sensitivity</td>
<td>62 (43.4%)</td>
<td>81 (56.6%)</td>
<td>143/254 (56.2%)</td>
</tr>
<tr>
<td>Oral &amp; Nonverbal Expression</td>
<td>77 (53.8%)</td>
<td>66 (16.2%)</td>
<td>143/254 (56.2%)</td>
</tr>
<tr>
<td>Written Expression</td>
<td>89 (62.2%)</td>
<td>54 (37.8%)</td>
<td>143/254 (56.2%)</td>
</tr>
<tr>
<td>Total Count Averages</td>
<td>71</td>
<td>72</td>
<td>48</td>
</tr>
</tbody>
</table>

Note. Less Confident = (ranks 3-4), Most Confident = (ranks 1-2); /=divided by.

NPBEA interpersonal domain skills garnered the greatest differences among principal rankings per accountability level. Principals, regardless of school accountability rating, rated
themselves highest as Most Confident in the skill of Sensitivity; the only skill in this domain ranked consistently across accountability levels. Conversely, Oral and Nonverbal Expression was diverse within each school rating: AA = Less Confident 77/53.8%, Most Confident 66/16.2%; R = Less Confident 48/50%, Most Confident 48/50%, E = Less Confident 3/20%, Most Confident 12/80%. Principal rankings of Written Expression also differed by accountability rating with lower rankings among AA (Less Confident 89/62.2%) and R (Less Confident 60/62.5%) campuses while highest rankings by E rated campuses were Most Confident (12/(80%). Motivation of Others found AA and R rated campuses with highest rankings of Most Confident (87/60.8%, 44/45.8% respectively) while E rated campuses garnered zero Most Confident rankings (0/0%). The E rated campus principals unanimously ranked Motivation of Others as Less confident (15/100%). Nevertheless, total count averages by ranking level per NPBEA interpersonal domain skill differed little by accountability level. R and E categories manifested the same average count totals per ranking level, and AA average totals per ranking category differed only by one count level (Less Confident = 71 and Most Confident = 72).

Chi-square comparisons between campus accountability ratings and NPBEA interpersonal domain skill frequency counts proved non-significant for all domain skills except Motivation of Others in a (2X3) cross-tabulation. Ranking of Motivation of Others differed between AA rated campuses and R and E rated schools; AA rankings were higher than the others (See Table 4). Differences between the principal rankings and campus accountability ratings were statistically significant, $X^2 (2, N = 254) = 22.157, p = .000$, $\phi_c = .30$. The moderate/medium effect size .30 (Rea & Parker, 1992; Evans & Rooney, 2007) suggests 30% of the variance in principal ranking (i.e., Less Confident or Most Confident) of Motivation of Others could be accounted for by campus accountability rating. Principals who reported Most Confident rankings
of *Motivation of Others* were more often from AA rated schools while principals with lower rankings were more likely from schools rated as R or E. The lower the campus accountability rating the higher the ranking of *Motivation of Others*.

**PASS Assessor Ratings of Principal NPBEA Skills**

Teams of two PASS assessors cooperatively rated the NPBEA skills of each principal based upon data from multiple sources. A total of 777 ratings were produced by 259 assessor teams (three skills per principal). However, because data for three of the 18 NPBEA skills were unavailable for comparison in the principal ranked data (*Implementation, Delegation, and Legal and Regulatory Applications,*), those skills were removed from the assessor data set as well (63 from 777 ratings), leaving a total of 714 ratings (see Table 5). In addition, the skill of *Motivating Others* was not rated by assessors as part of the PASS assessment.

**TABLE 5**

*Frequency Counts: Texas Accountability Ratings by Assessor Ratings of Principal NPBEA Skills*

(N = 259 assessor teams)

<table>
<thead>
<tr>
<th>NPBEA Domains</th>
<th>Skills</th>
<th>Academically Acceptable (AA)</th>
<th>Recognized (R)</th>
<th>Exemplary(E)</th>
<th>TOTAL RATINGS</th>
<th>Total By Domain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Functional</td>
<td>Leadership</td>
<td>71</td>
<td>59</td>
<td>7</td>
<td>137</td>
<td>365/714 (51%)</td>
</tr>
<tr>
<td></td>
<td>Information Collection</td>
<td>45</td>
<td>39</td>
<td>7</td>
<td>56</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Problem Analysis</td>
<td>16</td>
<td>12</td>
<td>5</td>
<td>33</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Judgment</td>
<td>26</td>
<td>28</td>
<td>8</td>
<td>62</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Organizational Oversight</td>
<td>37</td>
<td>29</td>
<td>11</td>
<td>77</td>
<td></td>
</tr>
<tr>
<td>Programming</td>
<td>Instructional Management</td>
<td>34</td>
<td>20</td>
<td>3</td>
<td>57</td>
<td></td>
</tr>
</tbody>
</table>
Leadership produced the largest frequency count from assessors (137) while the lowest frequency count was found for Resource Allocation (13), a difference of 124 counts (See Table 5). Skills in NPBEA’s functional, programming, and interpersonal domains differed in frequency with 365/51%, 204/28.5%, and 145/20.3%, respectively. Functional domain skills netted greater totals than skills in the programming and interpersonal domains by 22.5% and 30.7%, respectively. Overall, within the functional domain, Leadership received the largest count while the highest counts in the programming and interpersonal domains were found for Instructional Management (57) and Sensitivity (91).

The five NPBEA skills with highest frequencies by campus accountability level were similar for the AA and R groups (AA = Leadership (71), Sensitivity (48), Information Collection (45), Organizational Oversight (37), and Instructional Management (34); R = Leadership (59), Information Collection (39), Sensitivity (36), Organizational Oversight (29), and Judgment (28). Although ranked differently, both groups shared the same skills except for the exclusive skill of
Instructional Management in the AA level, Judgment in the R level. Conversely, the assessors found the E campus leaders to be considerably different from the AA and R campus leaders with highest frequency counts for the skills of Student Guidance and Development (15), Organizational Oversight (11), both Staff Development and Judgment (8), while Leadership, Information Collection and Sensitivity followed with 7. While E campus leaders were notable for skills exhibited by both AA and R principals, only E campus leaders demonstrated high degrees of Student Guidance and Development and Staff Development as rated by PASS assessor (see Table 5 and 6).

Comparison of Principal Self- Rankings and Assessor Ratings of NPBEA Skills by Texas Accountability Ratings

In order to identify the relationship between the leadership skills of rural principals and campus student achievement, NPBEA skills self-identified by sampled principals were compared to NPBEA skills identified by assessors within student achievement categories as measured by campus accountability ratings (AA, R, or E). Table 6 depicts comparisons of the top NPBEA skills according to principal self-rankings and assessor ratings by campus accountability level.

It should be noted that principals ranked their skills in subgroups determined by the three NPBEA domain groups, whereas assessors rated these 18 skills as a whole, not separated by domain. This difference accounts for seeming discrepancies reported in the frequency and percentages of E level principal ratings (see Table 6). Furthermore, as previously mentioned, three NPBEA skills were omitted because data were missing (Implementation and Delegation) or could not be ranked by principals (Legal and Regulatory Applications).

TABLE 6

Most Frequent NPBEA Skills: Principal and Assessor Ratings by Texas Accountability Ratings
From the highest five ranked or rated skills, principals from AA rated campus identified only two NPBEA skills also noted by assessors as strength areas: *Leadership* and *Sensitivity*.

Three skills identified from principal self-rankings but not noted by assessors as most proficient were *Judgment*, *Motivating Others*, and *Problem Analysis*. As previously mentioned, *Motivating Others* was the only significantly different NPBEA skill found between principal rankings and campus accountability ratings. Nevertheless, *Motivating Others* was not rated as highly by assessors. Instead, assessor ratings identified *Information Collection*, *Organizational Oversight* and *Instructional Management* as AA campus principal strengths.

At campuses with R accountability ratings, assessors and principals produced similar ratings for three of five NPBEA skills, one more than for AA rated campuses. Three NPBEA
skills, *Leadership, Sensitivity*, and *Judgment*, were reported most frequently among principal rankings and assessor ratings from campuses rated R; however, while principals identified *Instructional Management* and *Problem Analysis* as strengths, assessors noted *Information Collection* and *Organizational Oversight*.

In the category of E rated campuses, assessors named *Leadership* and *Judgment* as strengths, conforming to principal rankings. However, although principals ranked themselves highest on these skills, assessors disagreed. For assessors, E campus principals were strongest in *Student Guidance and Development, Organizational Oversight* and *Staff Development*, while also exhibiting *Information Collection* and *Sensitivity* skills. Other skills highly ranked by principals, but not by assessors, were *Oral Expression, Problem Analysis and Instructional Management*.

In both AA and R rated campus categories, principal rankings and assessors were more concurrent. The only unique skill noted among these groups was *Motivating Others*, identified by AA principals. With the exception of *Oral Expression*, the principal-ranked NPBEA skills in the E campus category were similar to those of AA and R campuses. However, E rated campus assessor ratings included two NPBEA skills not found in either AA or R categories: *Student Guidance and Development* and *Staff Development*. This suggests rural school principals from E rated schools exhibit different skills than rural principals from AA and R rated campuses.

**Conclusions**

Even though effective leadership positively impacts student achievement, it has been difficult to discern the requisite skills of effective leaders (Leithewood, et al., 2004; Cotton, 1995; Lezotte, 1992; Hallinger & Heck, 1996; Marzano et al., 2006). In this study, the PASS assessment was used to measure leadership skills as defined by the NPBEA. Each NPBEA
domain (Functional, Programming, and Interpersonal) reflects a particular skill set. Before the findings of this study can be adequately discussed, a deeper understanding of the nature of the NPBEA domain skill sets is necessary.

The functional domain comprises skills needed to manage daily, routine campus business (Leadership, Information Collection, Problem Analysis, Judgment, Organizational Oversight, and Delegation). Thus, the term functional indicates a base level of skills needed to manage a school: an organizational structure exists to provide order (e.g. to run the buses on time, schedule classes, or maintain order). Evidence of effectiveness is typically measured and quantified (e.g. attendance records, disciplinary referrals).

The skill set of the programming domain (Instructional Management, Curriculum Design, Student Guidance and Development, Staff Development, Measurement and Evaluation, and Resource Allocation) provides systemic campus leadership which requires greater perspective than do daily routines. Skills in this domain are more complex and difficult to quantify. Building upon skills in the functional domain, programming skills enable principals to develop frameworks, design anticipated outcomes, implement ongoing supervision, set goals and draw inferences.

Within the interpersonal domain are more subjectively measured skills (Motivating Others, Sensitivity, Oral and Nonverbal Communication, and Written Expression). To effectively employ the skills from both functional and programming domains, these interpersonal skills are subject to individual perception. For example, while principals may perceive themselves to be sensitive, teachers may not feel the same way. Furthermore, these perceptions vary according to time or experiences.
This description of NPBEA domain skill sets provides a context from which to compare the principal self-assessments and the assessor rankings of principal NPBEA skills in relation to campus student achievement as measure by state accountability ratings.

Functional Domain Skill Comparisons

In the functional domain skills, principals of Academically Acceptable (AA), Recognized (R), and E campuses ranked themselves similarly in the skills of Leadership, Problem Analysis, and Judgment (Most Confident). Likewise, principals from AA, R, and E campuses ranked themselves similarly in the skills Information Collection and Organizational Oversight (Less Confident). In addition, the self-rankings followed a consistent pattern across the skills, confidence level, and accountability ratings. For example, in the skill of Leadership, the majority of principals from AA, R and E campuses ranked themselves in the following order: Most Confident, first; Less Confident, second; and Confident, third. Regardless of campus accountability rating, principals ranked their functional domain skills similarly. This implies that student achievement is not a factor in determining how principals view themselves in terms of their ability to manage the daily routines of a school, regardless of student achievement rating. This supports Daresh’s (2007) conclusion that student instruction is addressed only after principals are comfortable in the role of manager. While most principals were Most Confident in managerial-type skills (Leadership, Problem Analysis, and Judgment), they were Less Confident in skills of Information Collection and Organizational Oversight. Interestingly, according to NPBEA skill definitions, Information Collection and Organizational Oversight both require collaborative, rather than managerial, leadership skills.

Programming Domain Skill Comparisons
In the programming domain, principals of AA, R, and E campuses ranked themselves similarly in the skills *Instructional Management*, *Student Guidance and Development* (Most Confident), and *Resource Allocation* (Less Confident). Again, the self-rankings were consistent across the skills, confidence levels, and accountability levels. *Staff Development* was ranked Confident across accountability ratings; however, whereas the majority of principals at the AA campuses ranked *Staff Development* Confident to Most Confident, the majority of principals at R and E campuses ranked *Staff Development* Confident to Less Confident. This finding might be attributed to three factors identified by Provasnik et al., (2007): 1) rural schools have less demographic diversity than urban or suburban schools; 2) rural schools have less access to educational programs such as prekindergarten, Advanced Placement, and International Baccalaureate courses; and 3) rural schools are more likely to have a smaller teacher/student ratio. Thus, principals on rural campuses may find it easier to implement the programming domain skills of *Instructional Management* and *Student Guidance* because they work with fairly homogeneous populations, fewer instructional programs, and smaller teacher/student ratios. However, rural principals may struggle with *Resource Allocation* due to limited availability of resources (Cruzeriro & Morgan, 2006). The variation in *Staff Development* rankings could be attributed to community resistance to change and geographic isolation as noted by Arnold et al. (2004).

*Interpersonal Domain Skill Comparisons*

Skills within the interpersonal domain produced the greatest differences among principal’s skill rankings in terms of campus student achievement as measured by state accountability ratings. The skill of *Sensitivity* was consistently ranked Most Confident across accountability rankings. Conversely, *Oral and Non-verbal Expression* differed in every
accountability rating: AA (majority Less Confident), R (half Less Confident and half Most Confident), and E (majority Most Confident). Written Expression also differed by campus ratings with the majority of AA and R principals ranking themselves Less Confident, while E principals were Most Confident. Findings indicate that at campuses with the highest student achievement, principal confidence in communication skills was greatest. Therefore, while most principals at all accountability levels felt they were responsive to the needs of others (Sensitivity), only E campus principals proved themselves to be strong communicators. Oral, non-verbal and written communication assists principals in providing clear direction for staff and students to assure goals are being met. Effective communication has been identified as a key component for leadership; the glue that bonds leadership responsibilities together (Scribner, Cockrell, Cockrell, & Valentine, 1999; Elmore, 2000; Fullan, 2001; & Leithwood & Riehl, 2003). This finding implies that campus student achievement may be affected by the principal’s effectiveness in communicating orally and non-verbally.

The greatest differences among principals were found in the skill of Motivation of Others. The majority of AA and R campus leader ranked Motivation of Others as Most Confident while none of E campus principals ranked it Most Confident. Notably, Motivation of Others findings produced the only statically significant difference among principals from campuses with different degrees of student achievement (rated AA, R, or E). Motivation of Others, as defined by NPBEA, creates conditions that promote a desire to achieve campus goals and provide helpful feedback, coaching and guidance to staff. Perhaps E campus principals with strong communication skills, who clearly set and describe goal expectations and communicate progress, find less need to motivate staff. Furthermore, it is possible that faculty at an Exemplary campus is more self-driven to monitor and improve instructional skills needed to maintain student
achievement, whereas faculty at AA and R rated campuses, under pressure of possible sanctions, need more reassurance and motivation from school leaders.

*Top Five NPBEA Skills from Principal Self-Rankings*

Of the 18 NPBEA skills, only seven were ranked in the top five by principals from all accountability levels. All three accountability levels (AA, R, and E) assigned *Leadership* as their Most Confident skill and ranked *Judgment* as their second Most Confident skill. Perhaps confidence in *Leadership* is associated with position. It would be counterintuitive for leaders to rank themselves low in this skill. Furthermore, the principalship requires continuous decision making; therefore, it is not surprising that *Judgment* was the second highest ranked skill. Daily, principals juggle a variety of issues and must have confidence in their ability to prioritize their work and decision making.

Conversely, the third through fifth most frequently ranked skill differed among principals by campus accountability rating: *Motivating Others, Problem Analysis, Sensitivity* (AA); *Sensitivity, Instructional Management, Problem Analysis* (R); *Oral Expression, Problem Analysis, Instructional Management* (E). Of these skills, only two were identified exclusively: *Oral Expression* was listed only by principals at E campuses and *Motivating Others* only by leaders of AA campuses. Based upon these findings it appears principals from AA campuses were Most Confident in skills within the functional and interpersonal domains, while principals from R campuses felt Most Confident in skills within the functional and programming domains. Principals from E campuses, however, ranked skills from all three domains. This seems to affirm Daresh’s (2007) contention that until a principal is comfortable with the management of a school he/she will not focus on instructional issues. Furthermore, Rutlege (2007) stated principals facing sanctions for low student performance shift focus to sanctions instead of best
practices, utilizing top-down management rather than collaborative leadership styles. Thus, principals at struggling AA campuses employ skills in sensitivity and motivation and embrace top-down management styles. In contrast, principals at E campuses focus on issues related to instruction and collaboration, and utilize effective communication skills (*Oral Expression*).

*Comparison of Principal Self-rankings and Assessor Rankings*

Comparison of assessor ranking to the principals’ self-assessment rankings showed a wide variance; thus providing the most relevant study finding. Assessors’ rankings for principals at AA and R campuses were similar with the respect to skills, but not to the order of those skills. Four skills assessors found most frequently for AA and R campus principals were *Leadership, Sensitivity, Information Collection* and *Organizational Oversight*. Only *Instructional Management* (AA) and *Judgment* (R) differed in assessor rankings of these principals. Regardless of campus rating, all principals ranked *Judgment* as their second Most Confident skill; whereas, assessors selected *Judgment* as a skill only demonstrated by R or E campus principals. *Judgment* by definition indicates “logical conclusions and quality decisions” were made. Although people in leadership positions might understandably believe they possess *Judgment*, as noted in principal self-rankings, PASS assessors established *Judgment* skills based upon authentic campus evidence. Principal rankings at all campus accountability groups indicated strong skills in *Judgment*, but assessors deemed principals at campuses with higher accountability ratings to have stronger skills in *Judgment*. Perhaps, as noted by Arnold et al. (2004), the isolation factor associated with rural schools influences diverse solutions to problems; however, it is not clear why principals at E rated schools outperform those at AA and R campuses. E principals might have exposure to broader leadership networks, thus broadening their exposure to problem solving strategies and programs.
Recommendations

It should be noted that of the top four assessor rankings for AA and R campus principals, three fell within the functional domain, while one fell within the interpersonal domain. In contrast, assessor rankings of E campus principals listed two from the functional domain (Organizational Oversight and Judgment) and two from the programming domain (Student Guidance and Staff Development). While in the functional domain, Organizational Oversight and Judgment require the use of perspective rather than managerial skill. Furthermore, the programming skills of Student Guidance and Staff Development require setting priorities, reaching conclusions, making quality decisions, and utilizing resources. This finding supports a need for professional development for principals that builds skills beyond those in the functional domain and into the programming domain. Finally, communication skills of the interpersonal domain are particularly important for leadership development. As noted, campus accountability ratings were higher at schools with principals citing confidence in their communication skills.

As noted in the review of literature, quality school leadership is second only to classroom instruction in influencing student achievement (Leithwood et al., 2004). More precisely, there is a need for professional development opportunities designed specifically for principals of rural campuses. Based on the findings in this study, rural principals who focus on skills and demonstrate skills in the programming domain tend to address the instructional needs of the campus in systemic manner utilizing collaborative leadership. Conversely, rural principals of lower performing campuses demonstrate skills in the functional domain supported by personal skills of the interpersonal domain. This supports conclusions from previous studies regarding the impact of campus leadership on student achievement (Daresh, 2007; Baxter, 2008; & Rutlege, 2007).
Future study examining principal attributes (i.e. gender, pre-administrative educational experience, leadership experience) that influence principals’ skills might further clarify differences among leaders from schools with different student achievement levels. Furthermore, differentiation of principals’ skills by campus level of instruction (i.e. elementary or secondary) might identify skills unique to student instructional level. Because Leadership was the top ranked skill by both principals and assessors, further study is needed to clarify the discreet skills that constitute Leadership and the degree to which these sub-skills vary among principals.
References


Mitchem, K., Kossar, K., & Ludlow, B. (2006, Summer). Finite resources, increasing demands:
Rural children left behind? Educators speak out on issues facing rural special education.


Appendix A

Principal Assessment of Student Success (PASS),

Principal Assessment for Student Success (PASS) is a principal assessment that has been approved by the State Board of Educator Certification (SBEC) for principal assessment within the state of Texas. According to Texas Education Code (TEC) 21.054, all principals must complete an assessment in order to maintain certification. The overarching goals of PASS include:

1. To determine the level of knowledge and skills for the principalship that each principal assessed demonstrates.
2. To provide quality assessment activities relevant to the role of the principalship.
3. To provide purposeful and constructive feedback related to each principal’s demonstration of knowledge and skills.
4. To provide opportunities for each principal assessed to be reflective about his/her level of knowledge and skills, as well as to his/her plan for professional growth.

PASS is based on three sets of criteria: skills, standards, and knowledge. The skills included in the assessment comprise 18 of the 21 skills identified for the principalship by the National Board of Policy Educational Administration (see Appendix B). The standards are the seven State Board of Educator Certification (SBEC) Standards which are required by the state to be included in the assessment. The knowledge is a compilation of the Ten Components of Effective Schools, the framework components of Instructional Leadership Development (ILD), and the instructional processes from the Student Success Initiative (SSI).

Each criterion is measured multiple times in PASS through a variety of authentic activities within the assessment. PASS contains a self-assessment process, a campus component,
a teacher component, and a student component. All activities are based on authentic data
provided by the principal being assessed and are directly connected to his/her campus.

The assessment process occurs over a 30-day period. All online activities are completed
within 16 days and are then submitted for assessor review. The assessors are given 11 days to
review the online responses and conduct a phone interview with the principal. Each principal’s
data and entry is reviewed by two assessors. One assessor is considered the primary assessor
and, in addition to scoring the rubrics for each activity, provides written feedback on each
activity. The assessment also includes one, face-to-face feedback day in which principals
expand on their previous responses with a state-of-the-campus report and a plan of action for a
teacher in need of assistance. Each primary assessor provides up to one hour of verbal feedback
to each principal being assessed.
Appendix B

National Policy Board of Educational Administration (NPBEA)

Knowledge and Skill Domains

Functional Domains

1. Leadership: Providing purpose and direction, formulating goals with staff and setting priorities based on community and district priorities and student and staff needs.

2. Information Collection: Classifying and organization information for use in decision making and mentoring.

3. Problem Analysis: Identifying problems, identifying possible causes, seeking additional needed information, framing possible solutions.

4. Judgment: Giving priority to significant issues then reaching logical conclusions and making quality decisions.

5. Organizational Oversight: Planning and scheduling own and other’s work so that resources are used appropriately and monitoring priorities so that goals and deadlines are met.

6. Implementation: Facilitating the coordination and collaboration of campus activities by establishing checkpoints and providing support.

7. Delegation: Assigning projects, tasks, and responsibilities together with authority to accomplish them.

Programming Domains

8. Instructional Management: Ensuring appropriate instructional methods are used to create positive learning experiences.

9. Curriculum Design: With staff, planning and implementing a framework for instruction and aligning curriculum with anticipated outcomes.
10. Student Guidance and Development: Enlisting the support and cooperation of diverse professionals, citizens, community agencies, parents and students to promote the growth and development of all students.

11. Staff Development: Supervising individuals and groups and providing feedback on performance and initiating self-development.

12. Measurement and Evaluation: Examining the extent to which outcomes meet or exceed previously defined goals, or priorities and drawing inferences for program revisions.

13. Resource Allocation: Allocating, monitoring and evaluating fiscal, human, material and time resources to reach campus goals and objectives.

*Interpersonal Domains*

14. Motivating Others: Creating conditions that promote the staff’s desire to achieve campus goals and providing feedback, coaching and guidance to staff.

15. Sensitivity: Perceiving and responding to the needs and concerns of others.

16. Oral and Nonverbal Expression: Making oral presentations that are clear and easy to understand.

17. Written Expression: Expressing ideas and appropriately in writing for different audiences.

*Contextual Domains*

18. Legal and Regulatory Applications: Working within local rules, procedures, and directives and recognizing standards of care involving civil and criminal liability for negligence.

(Thomson, 1993).

(Note: only 18 of the original 21 NPBEA knowledge and skill domains are assessed in PASS)
Appendix C

Texas Education Agency: School Accountability Rating

<table>
<thead>
<tr>
<th>Base indicators</th>
<th>Academically Acceptable</th>
<th>Recognized</th>
<th>Exemplary</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TAKS (2006-07)</strong> • All students and each student group meeting minimum size: • African American • Hispanic • White • Econ. Disadvantage.</td>
<td>meets each standard: • Reading/ELA ... 65% • Writing................. 65% • Social Studies.. 65% • Mathematics .... 45% • Science ............ 40% OR meets Required Improvement</td>
<td>meets 75% standard for each subject OR meets 70% floor and Required Improvement</td>
<td>meets 90% standard for each subject</td>
</tr>
<tr>
<td><strong>SDAA II (2007)</strong> All students (if meets minimum size criteria)</td>
<td>meets 50% standard <em>(Met ARD Expectations)</em> OR meets Required Improvement</td>
<td>Meets 70% standard <em>(Met ARD Expectations)</em> OR meets 65% floor and Required Improvement</td>
<td>Meets 90% standard <em>(Met ARD Expectations)</em></td>
</tr>
<tr>
<td><strong>Completion Rate I</strong> (class of 2006) • All students and each student group meeting minimum size: • African American • Hispanic • White • Econ. Disadvantage.</td>
<td>meets 75.0% standard OR meets Required Improvement</td>
<td>meets 85.0% standard OR meets 80.0% floor and Required Improvement</td>
<td>meets 95.0% standard</td>
</tr>
<tr>
<td><strong>Annual Dropout Rate (2005-06)</strong> • All students and each student group meeting minimum size: • African American • Hispanic • White • Econ. Disadv.</td>
<td>meets 1.0% standard</td>
<td>meets 0.7% standard</td>
<td>meets 0.2% standard</td>
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<tr>
<td><strong>Additional Provisions</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Exceptions</strong></td>
<td>Exceptions cannot be used to move to a rating of Recognized.</td>
<td>Exceptions cannot be used to move to a rating of Exemplary.</td>
<td></td>
</tr>
<tr>
<td><strong>School Leaver Provision for 2007</strong></td>
<td>A campus or district annual dropout rate, completion rate and/or underreported student measures cannot be the cause of lowered rating</td>
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