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PRINCIPAL DESIRABILITY FOR PROFESSIONAL DEVELOPMENT

Deanna L. Keith, Liberty University

ABSTRACT

Principals are often required to operate educational programs under a growing number of federal and state mandates for which they have limited knowledge and available recourses. This paper presents the results of a survey of 102 principals from 52 elementary schools, 25 middle schools, and 25 high schools within the state of Virginia. The survey instrument was administered during the 2008 school year and contained 25 professional development statements that previous research indicated were necessary for practicing principals. The primary purpose of this study was to investigate the perceptions of Virginia public school principals concerning their desirability for professional development training in order to meet current accountability measures. The results were analyzed by the following demographic characteristics: principal experience level, level of school (elementary, middle, or high school), the percentage of minority children, children with IEPs, children with limited English proficiency, and children in poverty; Title I status; and AYP accreditation. These results have implications for public school systems to determine principal needs and provide the necessary training to meet current mandates. Additionally, this information would allow advocacy and outreach professional organizations for school principals to design workshops that focus their efforts on the most needed professional development areas.

INTRODUCTION

Today's American educational system is facing a revolutionary change involving high-stakes testing designed to raise student achievement. The No Child Left Behind Act (NCLB) is potentially the most significant educational initiative to have been enacted in decades (Simpson, LaCava, & Graner, 2004), and NCLB affects virtually every person employed in the public school system (Heath, 2006). This legislation is unprecedented in its expectation that all students, regardless of disability, native language, race, socioeconomic status, or ethnicity, meet the standards in English and mathematics. Albrecht and Joles (2003) verified that NCLB outlined the most rigorous and exacting set of standards-based strategies; it was enacted for reforming schools and implemented a mandate that all schools demonstrate adequate yearly progress.

All schools must make detailed annual reports on the progress of all children, as well as report the progress of four subgroups: minority children, children with disabilities, children with limited English proficiency, and children from low-income families (Heath, 2006). While schools that meet adequate yearly progress receive financial rewards, public recognition, and accolades, those schools that do not meet minimum performance standards receive sanctions and are at risk of the state taking control of their school for state-initiated improvement.

The rigorous accountability standards of NCLB are undeniable. The effects are far-reaching, and every individual within each school community has a vested interest in this era that demands that all children meet these high standards, regardless of race, language, socioeconomic status, or disability. Without question, the No Child Left Behind Act reinforces a change in the way school leadership is perceived in the United States. The Institute for Educational Leadership (2002) offers the following:

Even as communities shine a public spotlight on principals when their schools' test scores are released and prescribe stiff penalties for many when their schools perform below expectations, current principals find very little in their professional preparation or ongoing professional development that equip them for this new role. Nor are they supported in this leadership role by their school districts, which, for decades, have expected principals to do little more than follow orders, oversee school staff and contain conflict. So instead, principals mainly stick with what they know, struggling to juggle the multiplying demands of running a school in a sea of rising expectations, complex student needs, enhanced accountability, expanding diversity, record enrollments and staff shortfalls. In short, the demands placed on principals have changed, but the profession has not changed to meet those demands. (p.2-3)

The impact of the NCLB on the role of the principal is daunting and complicated by the notion that many principals are learning how to cope with accountability pressures while they juggle other responsibilities. The Institute for Educational Leadership (2002) referenced a recent survey of K–8 principals in which 97.2% rated on-the-job experience as having the most value to their success as principals. In addition, this report noted that principals generally have few opportunities for networking or coaching, which would provide a vehicle for peer support, sharing information and learning best practices.

The Institute for Educational Leadership argued (2002), “There is no alternative. Communities around the country must ‘reinvent the principalship’ to enable principals to meet the challenges of the 21st century, and to guarantee the leaders for student learning that communities need to guide their schools and children to success” (p.3-4). Therefore, this study assesses principal desirability for professional development. The paper is organized in the following manner: The first section provides a review of the available literature. The second section discusses the design and the administration of the survey questionnaire. The third section presents the study’s results, and the final section discusses the overall conclusions from the study.

REVIEW OF LITERATURE

Over the last decade, an increasingly strong movement toward school accountability has emerged. According to Moe (2003), its message is a simple one: public schools should have strong academic standards; tests should be administered to determine what students are learning; and students, as well as the adults responsible for teaching them, should be held accountable for meeting the standards.

Thus, educational systems have been forced to shift their focus from educating the more financially advantaged and easier-to-teach children to educating all children, including those who are more difficult to teach due to difference, disadvantage, or disability (Allington & McGill-Franzen, 1995). One could argue that educational systems have developed and matured as a result of the federal regulations which are currently being aligned with Virginia's accountability system.

President George W. Bush signed the No Child Left Behind Act of 2001 into law on January 8, 2002, as the reauthorization of the 1965 Elementary and Secondary Education Act. NCLB set forth new requirements for public schools across the United States to show evidence that all students are learning and making adequate yearly progress. Academic standards set by states directed that schools be held accountable for results, and increased resources and flexibility would be offered by the federal government (U.S. Department of Education, 2007). President Bush described this new law as "the cornerstone of [his] administration," and during his first week in office in January, 2001, he stated, "These reforms express my deep belief in our public schools and their mission to build the mind and character of every child, from every background, in every part of America" (U.S. Department of Education, February 2004, p. 1).

Certainly, the notion of accountability is not a new one, as one form of accountability or another has always been present in American public schooling (Sirotnik, 2004). President Bush, however, put the full force of federal authority behind standards-based reform (Cuban, 2004). The central justification for this legislation was that schools and teachers were leaving children behind (Gerstl-Pepin, 2006). The legislation demands more of states and school districts than any previous federal education law (Jennings & Kober, 2004). Former U.S. Secretary of Education, Rod Paige (June, 2002), acknowledged that, while federal policy has had a significant impact on America's schools and children since the enactment of the Elementary and Secondary Education Act in 1965, many American students continued to lag behind.

Under NCLB, schools were to ensure that 100% of students achieve at levels identified as "proficient" by the year 2014 and to make mandated progress toward this goal each year. NCLB has far-reaching implications for those who work in public education. NCLB was different from other initiatives in that its main thrust was to promote high standards by holding schools and students accountable for outcomes rather than inputs or regularizations (Heinecke, Curry-Conrوران, & Moon, 2003).

THE ERA OF PRINCIPAL ACCOUNTABILITY

According to Lashway (2000), “Accountability is not just another task added to the already formidable list of the principal’s responsibilities. It requires new roles and new forms of leadership carried out under careful public scrutiny while simultaneously trying to keep day-to-day management on an even keel” (p. 13). Principals’ pre-service and in-service training may not have prepared them for the dual challenge of understanding data-driven decision making and guiding their learning communities through the changes in attitude and behavior that the high stakes accountability environment demands (Bennett, 2002). Additionally, accountability, by definition, is about a school’s obligation to society, so it will never be just an internal matter. The principal is the point person in responding to community concerns and, at the same time, proactively telling the school’s story (p. 13).

Although past accountability standards provided a less complicated and less public approach, this is not the case in the present era of high stakes testing. Comparisons of scores are inevitable in this environment, and test-driven decisions have a ripple effect on the community. Accountability must be shared among all participants because far-ranging results depend on cooperation and collaboration (Bennett, 2002), and the primary responsibility for meeting outcomes belongs to the principal. Even the severest critics of high stakes testing acknowledge that assessments are necessary for a variety of purposes – public accountability, diagnosis of student strengths and weaknesses, and evidence for teachers and parents that students are learning what they should (Lewis, 2000). Where they disagree about assessment, however, is where a single test is used to make major decisions about a student, such as high school graduation or promotion, and when that test becomes the basis of decisions that significantly affect the academic outcomes of a student in school.

Consequences for students include whether they pass or fail, whether they qualify for a diploma, and/or whether they are granted access to specific programs. The implications for high stakes testing are further reaching, as the resulting consequences extend to teachers, principals, schools, and school districts. Consequences for schools and districts include which ones receive awards for high performance and which ones are granted additional funding to try to improve low scores. For low-scoring schools, consequences include loss of accreditation, reconstitution, or closure.

THE ROLE OF THE PRINCIPAL

One can easily see that the role of the principal has changed given today’s high stakes accountability. The public expects principals to deliver results; however, such high stakes testing and the resulting accountability add intense stress to a principal’s workload.

Cohen (2001) noted that the operational demands that principals have always faced – school safety, keeping the buses running on schedule, contending with mounds of paperwork,

disciplining students, mediating adult interrelationships, handling central office requests and requirements, etc. – have not gone away. However, the principal also needs special capabilities for leadership in order to be an instructional leader: recruiting teachers loyal to the common task of teaching a specific group of children, knowing individual teachers well enough to suggest specific improvements, and creating a culture in which deep knowledge of instruction and learning serves as the foundation for an interdependent professional community (Fink & Resnick, 2001).

Principals currently are held accountable for the progress of their students, yet most principals spend relatively little time in classrooms and even less time analyzing instruction with teachers (Fink and Resnick, 2001). Principals increasingly indicate that these jobs are simply not doable (Institute for Educational Leadership, 2002). Among many professional development needs, perhaps none is more critical in the high stakes accountability environment than the need to understand and analyze data in order to align assessments, standards, curriculum, and instruction (Bennett, 2002).

Principals must be able to make the appropriate data-driven decisions and know how to prioritize among many daily challenges. This notion is validated by Lipsitz, Mizell, Jackson, and Austin (1997), who maintain that data-driven decision making is a necessary element of reform. Not only must the principal understand and engage in data-driven decision making, but the stakeholders must also be involved in these decisions. Distributed leadership and decision sharing make the principal's job both more manageable and more complex (Cohen, 2001). When principals engage parents and teachers in the decision-making process, they are employing a strategy for arriving at better decisions. In the past, school accountability was much less complicated and less public. If principals determined the needs of their specific learning communities and met them, this approach was feasible. However, in a learning community driven by high stakes testing, it is not. In a high stakes accountability environment, comparisons of scores to other schools are inevitable and test-driven decisions have a ripple effect on the community. Accountability must be shared among all participants because far-ranging results depend on cooperation and collaboration (Bennett, 2002, p.4).

Not only are principals expected to engage parents and teachers in the decision-making process, but principals are also expected to take the lead in engaging other citizens in supporting student achievement and school improvement (Cohen, 2001). Education leaders are encouraged by Lefkowitz and Miller (2003) to find time to effectively reach out to the public, engage them in school reform efforts, and respond to the concerns expressed, or they run the risk of having their accountability policies become irrelevant to the very people the policies are intended to reassure. In the high stakes accountability environment, school principals must simultaneously visualize the future of the learning community while meeting the adjustment needs of those they lead (Bennett, 2002, p.4). The Institute for Educational Leadership's (IEL) Task Force on the Principalship (2000) verified the notion,

Being an effective building manager used to be good enough. For the past century, principals mostly were expected to comply with district-level edicts, address personnel issues, order supplies, balance program budgets, keep hallways and playgrounds safe, put out fires that threatened tranquil public relations, and make sure that busing and meal services were operating smoothly. And [*sic*] principals still need to do all those things. But [*sic*] now they must do more. (p.2)

RESEARCH METHODOLOGY

This study solicited principals' perceptions of their desirability for professional development as it related to the high stakes accountability in terms of current legislation. This study was designed to address the following specific questions:

1) How do principals *rate* their desirability for professional development as it relates to meeting the high stakes accountability of the No Child Left Behind Act?

2) Do the following factors affect principals' perceptions of their desirability for professional development: experience level of the principal, level of school (elementary, middle or high school), the percentage of minority children, the percentage of children with disabilities, the percentage of children with limited English proficiency, the percentage of children in poverty within the school's population, the school's current Title 1 funding status, and the school's current AYP accreditation?

3) How do principals *rank* their desirability for professional development as it relates to meeting the high stakes accountability of the No Child Left Behind Act?

The population for this study was composed of Virginia principals randomly selected from school divisions. A letter along with the principal survey was sent to all school divisions within Virginia asking for the Superintendents' permission to distribute surveys to principals within their school divisions. The population for this study was drawn from 67 school divisions upon permission from those Superintendents. Using a stratified random numbers table, a sample size of 30% was taken from 332 elementary, 114 middle, and 112 high schools within the Commonwealth of Virginia so that surveys were randomly selected and sent to 100 elementary schools, 34 middle schools and 34 high schools. Only those schools in participating divisions were in the final sample.

Once all of the surveys were returned, they were examined for completion. Various descriptive and demographic data were collected about the principals and their schools. A total of 102 surveys were returned; 52 surveys were returned from elementary schools, 25 surveys were returned from middle schools, and 25 surveys were returned from high schools. The overall response rate was 62.2%. Inadequate surveys were eliminated.

Quantitative statistical methods were used to answer Section A demographic questions 1-8. Descriptive statistics including frequencies, percentages, means, and standard deviations were utilized. In Section B, survey questions 9-28 asked principals to rate their desirability for the 20

statements of professional development as it relates to the high stakes accountability in meeting the No Child Left Behind Act. One-way analysis of variance (ANOVA) was utilized, with a post-hoc t-test to determine differences between groups if the one-way analysis of variance produced statistically significant F. In Section C, principals were asked to rank their top 10 statements of professional development desirability as it relates to the high stakes accountability in meeting the No Child Left Behind Act. Statements were rank-ordered by means utilizing descriptive statistics.

RESULTS

This study examined the perceptions of Virginia principals concerning their desirability for professional development relating to the current high stakes accountability legislation. The research questions guiding this study include:

1) How do principals *rate* their desirability for professional development as it relates to meeting the high stakes accountability of the No Child Left Behind Act?

2) Do the following factors affect principals' perceptions of their desirability for professional development: experience level of the principal, level of school (elementary, middle or high school), the percentage of minority children, the percentage of children with disabilities, the percentage of children with limited English proficiency, the percentage of children in poverty within the school's population, the school's current Title 1 funding status, and the school's current AYP accreditation?

3) How do principals *rank* their desirability for professional development as it relates to meeting the high stakes accountability of the No Child Left Behind Act?

To answer these questions, a survey was developed, based upon twenty desirability statements as supported by research for principal professional development training.

DEMOGRAPHIC AND DESCRIPTIVE DATA

Various descriptive and demographic data were collected about the principals and their schools. Using a stratified random numbers table, a sample size of 30% was taken from the population. A total of 102 surveys were returned; 52 surveys were returned from elementary schools, 25 surveys were returned from middle schools, and 25 surveys were returned from high schools. The overall response rate was 62.2%. The data was summarized using frequencies and percentages for the total number of principals (102) responding to the survey. The missing data points were also reported under the category of "No Response."

Table 1: Principals' School Levels			
	Elementary	Middle	High
Frequency	52	25	25
Percent	51.0%	24.5%	24.5%

Table 2: Level of Experience as a Principal				
	1-5 years	6-10 years	11-20 years	20+ years
Frequency	54	26	17	5
Percent	52.9%	25.5%	16.7%	4.9%

Table 3: Minority Children					
	0-25%	26-49%	50-74%	75-100%	No Response
Frequency	75	19	7	0	1
Percent	73.5%	18.6%	6.9%	0%	1.0%

Table 4: Children with IEPs					
	0-25%	26-49%	50-74%	75-100%	No Response
Frequency	91	6	4	0	1
Percent	89.2%	5.9%	3.9%	0%	1.0%

Table 5: Children with Limited English Proficiency				
	0-25%	26-49%	50-74%	75-100%
Frequency	96	6	0	0
Percent	94.1%	5.9%	0%	0%

Table 6: Children in Poverty				
	0-25%	26-49%	50-74%	75-100%
Frequency	41	37	17	7
Percent	40.2%	36.3%	16.7%	6.9%

Table 7 Title 1 Status				
	Schoolwide Title 1 Funding	Title 1 Funding	No Title 1 Funding	No Response
Frequency	17	34	48	3
Percent	16.7%	33.3%	47.1%	2.9%

Table 8: School's Current Accreditation Status				
	Fully Accredited	Accredited With Warning	Accreditation Denied	Conditionally Accredited
Frequency	88	10	2	2
Percent	86.3%	9.8%	2.0%	2.0%

PRINCIPAL DESIRABILITY RATING

The survey consisted of twenty statements seeking principal perceptions about desirability for professional development training. These statements were referred to as *Statements of Desirability*.

Table 9: Statements of Desirability
Redesigning my school in order to increase my school's effectiveness
Implementing research-based curricula
Ensuring that my teachers are trained in research-based instructional methods
Providing core reading knowledge to novice teachers who did not get this training in college
Preparing for sudden increases in my student population as my school's effectiveness increases
Juggling the demands of running a school in a sea of rising expectations, complex student needs, enhance accountability, expanding diversity, record enrollments and staff shortfalls
Raising the achievement levels of minority students
Raising the achievement levels of students living in poverty
Raising the achievement levels of new English learners (ESL)
Raising the achievement levels of students with disabilities
Understanding data-driven decision making
Guiding my learning community through the changes in attitude and behavior that high stakes accountability environment demands
Designing curriculum that meets the learning needs of all students and is aligned with state and local standards
Knowing what constitutes good instructional practice
Coaching and guiding teachers in the continual improvement of their educational knowledge and practice
Understanding the foundations of effective special education
Understanding and analyzing data in order to align assessment, standards, curriculum, and instruction
Understanding how to interpret research findings and evaluate data
Engaging the school community in my school reform efforts
Visualizing the future of my specific learning community while meeting the adjustment needs of my community

Research Question 1

The first research question asked principals to assess their desirability for professional development as it relates to meeting high stakes accountability. Specifically, the statement read, "The following indicates my level of desirability for professional development training as it relates to: each of the twenty *Statements of Desirability*." A Likert scale was provided, with a range of Strong (1), Moderate (2), Little (3), and None (4). Surveys which were returned with blank data were included in the "No Response" category. The principals assessed their overall desirability for professional development training in the twenty categories to be Strong to Moderate. To further summarize the data, the number of principals with Strong Desirability (response 1) and No Desirability (response 4) was again aggregated and compared.

The data suggests desirability for principal professional development training. The reader should note that there were only six statements toward which one or more principals noted they had No Desirability. Those statements were (1) redesigning my school in order to increase my school's effectiveness, (2) providing core reading knowledge to novice teachers who did not get this training in college, (3) preparing for sudden increases in my student population as my school's effectiveness increases, (4) raising the achievement levels of minority students, (5) raising the achievement levels of students living in poverty, and (6) raising the achievement levels of new English learners (ESL).

Rank Order	Statement #	Statement	Mean
1 st	3	Ensuring that my teachers are trained in research-based instructional methods	1.26
2 nd	10	Raising the achievement levels of students with disabilities	1.30
3 rd	8	Raising the achievement levels of students living in poverty	1.32
4 th	15	Coaching and guiding teachers in the continual improvement of their educational knowledge and practice	1.37
5 th	2	Implementing research-based curricula	1.47
6 th	14	Knowing what constitutes good instructional practice	1.48
7 th	16	Understanding the foundations of effective special education	1.48
8 th	4	Providing core reading knowledge to novice teachers who did not get this training in college	1.51
9 th	13	Designing curriculum that meets the learning needs of all students and is aligned with state and local standards	1.58
10 th	7	Raising the achievement levels of minority students	1.59
11 th	17	Understanding and analyzing data in order to align assessment, standards, curriculum, and instruction.	1.63
12 th	12	Guiding my learning community through the changes and attitude and behavior that high stakes accountability environment demands	1.64
13 th	11	Understanding data-driven decision making	1.71
14 th	18	Understanding how to interpret research findings and evaluate data	1.73
15 th	6	Juggling the demands of running a school in a sea of rising expectations, complex student needs, enhanced accountability, expanding diversity, record enrollment, and staff shortfalls	1.75
16 th	19	Engaging the school community in my school reform efforts	1.79
17 th	9	Raising the achievement levels of new English learners	1.87
18 th	20	Visualizing the future of my specific learning community while meeting the adjustment needs of my community	1.90
19 th	1	Redesigning my school in order to increase my school's effectiveness	2.10
20 th	5	Preparing for sudden increases in my student population as my school's effectiveness increases	2.31

The mean of each of the twenty Statements of Desirability was calculated, and the statements were rank-ordered from the lowest mean (greatest level of desirability) to the highest mean (lowest level of desirability). The rank-ordered mean for each of these twenty-eight Statements of Desirability was also calculated and reported in Table 10.

Table 11: Test of Relative Importance			
Rank Order	Statement Number	Statement	Mean
		Cluster of Relative Importance #1	
1 st	3	Ensuring that my teachers are trained in research-based instructional methods	1.26
2 nd	10	Raising the achievement levels of students with disabilities	1.30
3 rd	8	Raising the achievement levels of students living in poverty	1.32
		Cluster of Relative Importance #2	
4 th	15	Coaching and guiding teachers in the continual improvement of their educational knowledge and practice	1.37
5 th	2	Implementing research-based curricula	1.47
6 th	14	Knowing what constitutes good instructional practice	1.48
7 th	16	Understanding the foundations of effective special education	1.48
		Cluster of Relative Importance #3	
8 th	4	Providing core reading knowledge to novice teachers who did not get this training in college	1.51
9 th	13	Designing curriculum that meets the learning needs of all students and is aligned with state and local standards	1.58
10 th	7	Raising the achievement levels of minority students	1.59
11 th	17	Understanding and analyzing data in order to align assessment, standards, curriculum, and instruction.	1.63
		Cluster of Relative Importance #4	
12 th	12	Guiding my learning community through the changes and attitude and behavior that high stakes accountability environment demands	1.64
13 th	11	Understanding data-driven decision making	1.71
14 th	18	Understanding how to interpret research findings and evaluate data	1.73
15 th	6	Juggling the demands of running a school in a sea of rising expectations, complex student needs, enhanced accountability, expanding diversity, record enrollment, and staff shortfalls	1.75
		Cluster of Relative Importance #5	
16 th	19	Engaging the school community in my school reform efforts	1.79
17 th	9	Raising the achievement levels of new English learners	1.87
18 th	20	Visualizing the future of my specific learning community while meeting the adjustment needs of my community	1.90
		Cluster of Relative Importance #6	
19 th	1	Redesigning my school in order to increase my school's effectiveness	2.10
20 th	5	Preparing for sudden increases in my student population as my school's effectiveness increases	2.31

Those statements with the highest desirability (lowest mean) for professional development training included ensuring teachers are trained in research-based instructional

methods and raising the achievement levels of students with disabilities and students living in poverty. Those statements with the lowest desirability (highest mean) for professional development training included visualizing the future needs of the school's learning community, redesigning the school in order to increase the school's effectiveness, and preparing for sudden increases in student population.

The reader should note that some means were so similar that there may be limited practical differences between them. To further differentiate, a Test of Relative Importance (Table 11) was calculated based on desirability statement means using a one-sample t-test. The Test of Relative Importance used the rank-ordered desirability statements to find statements of the same level of importance relative to each other.

Research Question 2

Research Question 2 asked, "Do the following factors affect principals' perceptions of their desirability for professional development: experience level of the principal, level of school (elementary, middle or high school), the percentage of minority children, the percentage of children with disabilities, the percentage of children with limited English proficiency, the percentage of children in poverty within the school's population, the school's current Title 1 funding status, and the school's current AYP accreditation?"

For Table 12, analysis of variance (ANOVA) was utilized to determine if differences in principals' desirability concerning professional development are related to the above noted demographic characteristics. When differences among school levels were determined to be statistically significant, the post-hoc Scheffe test was utilized to determine differences between the sub-groups.

Research Question 2.1

Sub-question 2.1: Are differences in principals' desirability concerning professional development related to the school level of the principal?

For the purpose of this study, principal experience was divided into three levels: Level 1 - Elementary, Level 2 - Middle School and Level 3 - High School. The results are summarized in Table 12.

As observed in Table 12, the analysis of variance revealed six factors that were statistically significant as a function of school level:

- 1 Redesigning my school in order to increase my school's effectiveness,
- 4 Providing core reading knowledge to novice teachers who did not get this training in college,
- 5 Preparing for sudden increases in my student population as my school's effectiveness increases,

- 10 Raising the achievement levels of students with disabilities,
- 11 Understanding data-driven decision making, and
- 20 Visualizing the future of my specific learning community while meeting the adjustment needs of my community.

		N	Mean	Standard Deviation	F-value	Significance	
1	Redesigning my school in order to increase my school's effectiveness	Elementary	52	1.94	.938	4.491	.014*
		Middle	25	1.96	.790		
		High	25	2.56	.870		
4	Providing core reading knowledge to elementary teachers who did not get this training in college	Elementary	52	1.42	.605	3.244	.043*
		Middle	25	1.40	.500		
		High	25	1.80	.866		
5	Preparing for sudden increases in my student population as my school's effectiveness increases	Elementary	52	2.13	.841	4.358	.015*
		Middle	25	2.28	.843		
		High	25	2.72	.737		
10	Raising the achievement levels of students with disabilities	Elementary	52	1.42	.499	4.196	.018*
		Middle	25	1.12	.332		
		High	25	1.24	.436		
11	Understanding data-driven decision making	Elementary	52	1.73	.660	3.154	.047*
		Middle	25	1.44	.651		
		High	25	1.92	.759		
		Middle	25	1.32	.557		
		High	25	1.40	.500		
20	Visualizing the future of my specific learning community while meeting the adjustment needs of my community	Elementary	52	1.96	.791	4.193	.018*
		Middle	25	1.56	.583		
		High	25	2.12	.666		

Note: Those with a bold asterisk have statistical difference at the alpha of ≤ 0.05

In order to determine where differences occurred between groups, a post-hoc Scheffe test was utilized. The data is presented in Table 13.

As revealed in Table 13, differences were found among the desirability levels:

1 - Redesigning my school in order to increase my school's effectiveness.

Differences existed between principals at the elementary and high school levels with a significance found at the $p = .020$ level. Principals at the elementary level indicated a stronger desirability for professional development training in this area than did principals at the high

school level. There was no significance between elementary and middle school levels or middle and high school levels.

Table 13: Post-Hoc Differences in Principal's Perceptions by School Level					
	Statement	Comparisons by School Level		Mean Difference	Sig.
1	Redesigning my school in order to increase my school's effectiveness	Elementary	Middle	-.018	.997
			High	-.618(*)	.020*
		Middle	Elementary	.018	.997
			High	-.600	.062
		High	Elementary	.618(*)	.020*
		Middle	.600	.062	
5	Preparing for sudden increases in my student population as my school's effectiveness increases	Elementary	Middle	-.145	.766
			High	-.585(*)	.016*
		Middle	Elementary	.145	.766
			High	-.440	.169
		High	Elementary	.585(*)	.016*
		Middle	.440	.169	
10	Raising the achievement levels of students with disabilities	Elementary	Middle	.303(*)	.024*
			High	.183	.249
		Middle	Elementary	-.303(*)	.024*
			High	-.120	.640
		High	Elementary	-.183	.249
		Middle	.120	.640	
11	Understanding data-driven decision making	Elementary	Middle	.291	.222
			High	-.189	.526
		Middle	Elementary	-.291	.222
			High	-.480	.050*
		High	Elementary	.189	.526
		Middle	.480	.050*	
20	Visualizing the future of my specific learning community while meeting the adjustment needs of my community	Elementary	Middle	.402	.075
			High	-.158	.662
		Middle	Elementary	-.402	.075
			High	-.560(*)	.025*
		High	Elementary	.158	.662
		Middle	.560(*)	.025*	

Note: Those with a bold asterisk have statistical difference at the alpha of ≤ 0.05

4 - Providing core reading knowledge to novice teachers who did not get this training in college.

Post hoc testing showed no statistical significance.

5 - Preparing for sudden increases in my student population as my school's effectiveness increases.

Differences existed between elementary and middle school levels with a significance found at the $p = .016$ level. Principals at the elementary school level indicated stronger desirability for professional development training in this area than at the high school level. There was no significant difference between elementary and middle or middle and high school level principals.

10 - Raising the achievement levels of students with disabilities.

Differences existed between elementary and middle school levels with a significance found at the $p = .024$ level. Principals at the middle school level indicated stronger desirability for professional development training in this area than at the elementary school level. There was no significant difference between elementary and high or middle and high school level principals.

11 - Understanding data-driven decision making

Differences existed between middle and high school levels with a significance found at the $p = .50$ level. Principals at the middle school level indicated stronger desirability for professional development training in this area than at the high school level. There was no significant difference between elementary and middle or elementary and high school level principals.

20 - Visualizing the future of my specific learning community while meeting the adjustment needs of my community

Differences existed between middle and high school levels with a significance found at the $p = .025$ level. Principals at the middle school level indicated stronger desirability for professional development training in this area than at the high school level. There was no significant difference between elementary and middle or middle and high school level principals.

Research Question 2.2

Sub-question 2.2: Are differences in principals' desirability concerning professional development related to the level of experience as a principal?

In order to answer this question, an ANOVA was utilized. When differences among school levels were determined to be statistically significant, the post-hoc Scheffe test was

utilized to determine differences between the sub-groups. For the purpose of this study, principal experience was divided into four levels: Level 1 = 1-5 years, Level 2 = 6-10 years, Level 3 = 11-20 years and Level 4 = 20+ years.

		Years	N	Mean	Standard Dev	F value	Sig
4	Providing core reading knowledge to novice teachers who did not get this training in college	1-5	54	1.67	.727	3.520	.018*
		6-10	26	1.50	.583		
		11-20	17	1.12	.485		
		20+	5	1.20	.447		
7	Raising the achievement levels of minority students	1-5	54	1.78	.904	2.785	.045*
		6-10	26	1.46	.706		
		11-20	17	1.18	.529		
		20+	5	1.60	.548		
10	Raising the achievement levels of students with disabilities	1-5	54	1.41	.496	3.694	.014*
		6-10	26	1.15	.368		
		11-20	17	1.12	.332		
		20+	5	1.60	.548		
15	Coaching and guiding teachers in the continual improvement of their educational knowledge and practice	1-5	54	1.31	.469	4.278	.007*
		6-10	26	1.50	.648		
		11-20	17	1.18	.393		
		20+	5	2.00	.000		
19	Engaging the school community in my school reform efforts	1-5	54	1.76	.699	4.829	.004*
		6-10	26	1.96	.720		
		11-20	17	1.41	.507		
		20+	5	2.60	.548		

Note: Those with a bold asterisk have statistical difference at the alpha of ≤ 0.05

As indicated in Table 14, the analysis of variance revealed five factors that were statistically significant as a function of school level. Those factors were:

- 4** - Providing core reading knowledge to novice teachers who did not get this training in college,
- 7** - Raising the achievement level of students of minority,
- 10** - Raising the achievement levels of students with disabilities, and
- 15** Coaching and guiding teachers in the continual improvement of their educational knowledge and practice,
- 19** - Engaging the school community in my school reform efforts.

In order to determine where differences occurred between groups, a post-hoc Scheffé test was utilized. The data is presented in Table 15.

As presented in Table 15, differences were found among the desirability levels:

- 4** - Providing core reading knowledge to novice teachers who did not get this training in college.

Differences existed between principals with 1-5 years of experience and principals with 11-20 years of experience. This was significant at the .030 confidence level. Principals with 11-20 years of experience indicated a stronger desirability for professional development training in this area than did principals with 1-5 years of experience. There was no significance between the other levels of experience in principals.

7 - Raising the achievement levels of minority students.

Post hoc testing showed no statistical significance.

10 - Raising the achievement level of students with disabilities.

Post hoc testing showed no statistical significance.

11 - Understanding data-driven decision making.

Post hoc testing showed no statistical significance.

15 - Coaching and guiding teachers in the continual improvement of their educational knowledge and practice.

Differences existed between principals with 1-5 years of experience and principals with 20+ years of experience. This was significant at the .041 confidence level. Principals with 1-5 years of experience indicated stronger desirability for professional development training in this area than did those principals with 20+ years of experience. Differences were also statistically significant between principals with 11-20 years of experience and principals with 20+ years of experience. This was significant at the .019 confidence level. Again, there was a stronger desirability indicated from principals with 11-20 years of experience than those principals with 20+ years of experience. There was no statistical significance between the other levels of experience in principals.

19 - Engaging the public in my school reform efforts.

Differences existed between principals with 11-20 years of experience and principals with 20+ years of experience. This was significant at the .009 confidence level. Principals with 11-20 years of experience indicated stronger desirability for professional development training in this area than did those principals with 20+ years of experience. There was no statistical significance between the other levels of experience in principals.

Research Question 2.3

Sub-question 2.3: Are differences in principals' desirability concerning professional development related to the percent of minority children from the student population?

In order to answer this question, an ANOVA was utilized. When differences among school levels were determined to be statistically significant, the post-hoc Scheffe test was utilized to determine differences between the sub-groups. For the purpose of this study, school minority populations were divided into four levels: Level 1 = 0-25%, Level 2 = 26-49%, Level 3 = 50-74%, and Level 4 = 75-100%.

Table 15: Post-Hoc Differences in Principal's Perceptions by Experience Level					
		Comparisons by Years of Experience		Mean Difference	Significance
4	Providing core reading knowledge to novice teachers who did not get this training in college	1-5	6-10	.167	.762
			11-20	.549(*)	.030*
			20+	.467	.501
		6-10	1-5	-.167	.762
			11-20	.382	.316
			20+	.300	.825
		11-20	1-5	-.549(*)	.030*
			6-10	-.382	.316
			20+	-.082	.996
		20+	1-5	-.467	.501
			6-10	-.300	.825
	11-20	.082	.996		
15	Coaching and guiding teachers in the continual improvement of their educational knowledge and practice	1-5	6-10	-.185	.498
			11-20	.138	.805
			20+	-.685(*)	.041*
		6-10	1-5	.185	.498
			11-20	.324	.239
			20+	-.500	.250
		11-20	1-5	-.138	.805
			6-10	-.324	.239
			20+	-.824(*)	.019*
		20+	1-5	.685(*)	.041*
			6-10	.500	.250
	11-20	.824(*)	.019*		
19	Engaging the school community in my school reform efforts	1-5	6-10	-.202	.662
			11-20	.347	.331
			20+	-.841	.073
		6-10	1-5	.202	.662
			11-20	.550	.082
			20+	-.638	.291
		11-20	1-5	-.347	.331
			6-10	-.550	.082
			20+	-1.188(*)	.009*
		20+	1-5	.841	.073
			6-10	.638	.291
	11-20	1.188(*)	.009*		

Note: Those with a bold asterisk have statistical difference at the alpha of < 0.05

		% Population	N	Mean	Standard Deviation	F value	Significance
7	Raising the achievement levels of minority students	0-25	75	1.73	.859	3.440	.020*
		26-49	19	1.26	.562		
		50-74	7	1.00	.000		
10	Raising the achievement levels of students with disabilities	0-25	75	1.36	.483	2.708	.049*
		26-49	19	1.11	.315		
		50-74	7	1.14	.378		

Note: Those with a bold asterisk have statistical difference at the alpha of ≤ 0.05

Post-hoc tests were not performed for raising minority and raising disability because at least one group had too few cases.

Research Question 2.4

Sub-question 2.4: Are differences in principals' desirability concerning professional development related to the percent of children with IEPs from the student population?

In order to answer this question, an analysis of variance (ANOVA) was utilized. When differences among school levels were determined to be statistically significant, the post-hoc Scheffe test was utilized to determine differences between the sub-groups. For the purpose of this study, school IEP levels were divided into four levels: Level 1 = 0-25% years, Level 2 = 26-49% years, Level 3 = 50-74% years and Level 4 = 75-100% years.

		% Population	N	Mean	Standard Deviation	F value	Significance
11	Understanding data-driven decision making	0-25	91	1.74	.697	2.897	.039*
		26-49	6	1.50	.548		
		50-74	4	1.00	.000		

Note: Those with a bold asterisk have statistical difference at the alpha of ≤ 0.05

As observed in Table 17, the analysis of variance revealed only one statement which showed statistical significance:

11 - Understanding data-driven decision making.

This statement showed statistical significance as a function of the percent of children with IEPs from the total school population. The Scheffe Post-hoc test could not be performed for 10 because at least one group had too few cases.

Research Question 2.5

Sub-question 2.5: Are differences in principals’ desirability concerning professional development related to the percent of children with limited English proficiency from the student population?

In order to answer this question, an ANOVA was utilized. When differences among the percentage of children with limited English proficiency were determined to be statistically significant, the post-hoc Scheffe test was utilized to determine differences between the sub-groups. For the purpose of this study, the limited English proficiency student population was divided into four levels: Level 1 = 0-25%, Level 2 = 26-49%, Level 3 = 50-74%, and Level 4 = 75-100%.

Table 18 Differences in Principal Perceptions by Percent of Children with Limited English Proficiency from Total School’s Population (0-25%, 26-49%, 50-74%, and 75-100%)							
		% Limited English	N	Mean	Standard Deviation	F	Significance
3	Ensuring that my teachers are trained in research-based instructional methods	0-25	96	1.24	.453	4.513	.036*
		26-49	6	1.67	.816		

Note: Those with a bold asterisk have statistical difference at the alpha of ≤ 0.05

As observed in Table 18, the analysis of variance revealed that the following statement had statistical significance:

3 - Ensuring that my teachers are trained in research-based instructional methods.

This statement was statistically significant as a function of the percent of children with limited English proficiency from the total school population. The Scheffe Post-hoc test could not be performed for 3 because at least one group had fewer than two cases.

Research Question 2.6

Sub-question 2.6: Are differences in principals' desirability concerning professional development related to the percentage of impoverished children from the student population?

In order to answer this question, an analysis of variance (ANOVA) was utilized. When differences among the percentage of impoverished children were determined to be statistically significant, the post-hoc Scheffe test was utilized to determine differences between the sub-groups. For the purpose of this study, the percentage of impoverished children were divided into four levels: Level 1 = 0-25%, Level 2 = 26-49%, Level 3 = 50-74%, and Level 4 = 75-100%.

As presented in Table 19, the analysis of variance revealed four factors which were found to be statistically significant as a function of the percent of impoverished children from the total school's population. Those factors were:

- 1 - Redesigning my school in order to increase my school's effectiveness,
- 7 - Raising the achievement levels of minority students,
- 9 - Raising the achievement levels of new English learners,
- 10 - Raising the achievement levels of students with disabilities.

		% Impoverished children	N	Mean	Standard Deviation	F value	Significance
1	Redesigning my school in order to increase my school's effectiveness	0-25	41	2.17	.771	4.314	.007*
		26-49	37	2.27	.902		
		50-74	17	2.00	1.173		
		75-100	7	1.00	.000		
7	Raising the achievement levels of minority students	0-25	41	1.46	.636	7.796	.000*
		26-49	37	1.59	.896		
		50-74	17	1.35	.702		
		75-100	7	2.86	.378		
10	Raising the achievement levels of students with disabilities	0-25	41	1.39	.494	6.879	.000*
		26-49	37	1.22	.417		
		50-74	17	1.06	.243		
		75-100	7	1.86	.378		

Note: Those with a bold asterisk have statistical difference at the alpha of < 0.05

In order to determine where differences occurred between groups, a post-hoc Scheffe test was utilized. The data is presented in Table 20.

As revealed in Table 20, differences were found among the following desirability levels:

1 - Redesigning my school in order to increase my school's effectiveness.

Differences existed between groups reporting between 0-25% impoverished children and 75-100% impoverished children. This was significant at the .017 confidence level. Principals from schools with 75-100% impoverished children indicated a significantly stronger desirability for professional development training in statement 1 than principals with 0-25% impoverished children. Additionally, differences were attributed to groups reporting between 26-49% impoverished children and 75-100% impoverished children. This was significant at the .008 confidence level. Principals from schools with 75-100% impoverished children again showed stronger desirability than principals with 26-49% impoverished children. There was no statistical significance between the other levels of schools.

7 - Raising the achievement levels of minority students.

Differences existed between groups reporting 75-100% impoverished children and every other impoverished children population level. Statistical significance was found between 75-100% impoverished children and 0-25% impoverished children at the .000 confidence level. Statistical significance was found between 75-100% impoverished children and 26-49% impoverished children at the .001 confidence level. Statistical significance was found between 75-100% impoverished children and 50-74% impoverished children at the .000 confidence level. Consistently, principals from schools with 75-100% impoverished children indicated a lower desirability for professional development training.

9 - Raising the achievement levels of new English learners.

Differences existed between groups reporting populations composed of 75-100% impoverished children and those reporting populations composed of 0-25% impoverished children. Statistical significance was found at the .029 confidence level. Principals from schools with 0-25% impoverished children indicated a stronger desirability for professional development to raise the achievement levels of new English learners than the other poverty population levels. There was no statistical significance between the other levels of schools.

10 - Raising the achievement levels of students with disabilities.

Differences existed between groups reporting populations composed of 75-100% impoverished children and those reporting populations composed of 26-49% impoverished children as well as those reporting a 50-74% impoverished population. Statistical significance was found at the .006 confidence level between 26-49% and 75-100%.

Table 20:					
Post-Hoc Differences as a Function of the Percent of Impoverished children from the Total School's Population					
		Comparisons by % Impoverished children		Mean Difference	Significance
1	Redesigning my school to increase my school's effectiveness	0-25	26-49	-.100	.969
			50-74	.171	.928
			75-100	1.171(*)	.017*
		26-49	0-25	.100	.969
			50-74	.270	.775
			75-100	1.270(*)	.008*
		50-74	0-25	-.171	.928
			26-49	-.270	.775
			75-100	1.000	.098
			75-100	0-25	-1.171(*)
		26-49	-1.270(*)	.008*	
		50-74	-1.000	.098	
7	Raising the achievement levels of minority students	0-25	26-49	-.131	.894
			50-74	.110	.966
			75-100	-1.394(*)	.000*
		26-49	0-25	.131	.894
			50-74	.242	.744
			75-100	-1.263(*)	.001*
		50-74	0-25	-.110	.966
			26-49	-.242	.744
			75-100	-1.504(*)	.000*
			75-100	0-25	1.394(*)
		26-49	1.263(*)	.001*	
		50-74	1.504(*)	.000*	
9	Raising the achievement levels of new English learners (ESL)	0-25	26-49	-.290	.604
			50-74	-.023	1.000
			75-100	-1.174(*)	.029*
		26-49	0-25	.290	.604
			50-74	.267	.815
			75-100	-.884	.163
		50-74	0-25	.023	1.000
			26-49	-.267	.815
			75-100	-1.151	.065
			75-100	0-25	1.174(*)
		26-49	.884	.163	
		50-74	1.151	.065	
10	Raising the achievement levels of students with disabilities	0-25	26-49	.174	.361
			50-74	.331	.071
			75-100	-.467	.073
		26-49	0-25	-.174	.361
			50-74	.157	.664
			75-100	-.641(*)	.006*
		50-74	0-25	-.331	.071
			26-49	-.157	.664
			75-100	-.798(*)	.001*
			75-100	0-25	.467
		26-49	.641(*)	.006*	
		50-74	.798(*)	.001*	

Note: Those with a bold asterisk have statistical difference at the alpha of < 0.05

Statistical significance was found at the .001 confidence level between 50-74% and 75-100%. Principals from schools with 26-49% and 50-74% impoverished children indicated a stronger desirability than other impoverished population levels. There was no statistical significance between the other levels of schools.

Research Question 2.7

Sub-question 2.7: Are differences in principals’ desirability concerning professional development related to the school’s current Title 1 Status?

In order to answer this question, an ANOVA was utilized. When differences among the percentage of children with limited English proficiency was determined to be statistically significant, the post-hoc Scheffe test was utilized to determine differences between the sub-groups. For the purpose of this study, Title 1 Status levels were divided into three levels: Level 1 - Schoolwide Title 1 funding, Level 2 - Title 1 funding, Level 3 - No Title 1 funding.

		Title 1 Funding	N	Mean	Standard Deviation	F value	Significance
7	Raising the achievement levels of minority students	Schoolwide	17	1.47	.624	2.988	.035*
		Title 1	34	1.91	.866		
		None	48	1.40	.792		
12	Guiding my learning community through the changes in attitude and behavior that high stakes accountability environment demands	Schoolwide	17	1.24	.437	5.507	.002*
		Title 1	34	1.88	.478		
		None	48	1.60	.610		
15	Coaching and guiding teachers in the continual improvement of their educational knowledge and practice	Schoolwide	17	1.12	.332	3.029	.033*
		Title 1	34	1.56	.504		
		None	48	1.33	.559		
17	Understanding and analyzing data in order to align assessment, standards, curriculum, and instruction	Schoolwide	17	1.29	.470	3.746	.014*
		Title 1	34	1.88	.640		
		None	48	1.56	.649		

Note: Those with a bold asterisk have statistical difference at the alpha of < 0.05

As observed in Table 21, the analysis of variance revealed four factors that were statistically significant as a function of Title 1 status. Those factors were:

- 7 - Raising the achievement levels of minority students,
- 12 - Guiding my learning community through the changes in attitude and behavior that high stakes accountability environment demands,
- 15 - Coaching and guiding teachers in the continual improvement of their educational knowledge and practice, and

17 - Understanding and analyzing data in order to align assessment, standards, curriculum, and instruction.

In order to determine where differences occurred between groups, a post-hoc Scheffe test was utilized. The data is presented in Table 22.

As revealed in Table 22, differences were found among the following desirability levels:

7 - Raising achievement levels of minority students.

Differences existed between groups receiving Title 1 funding and those receiving no Title 1 funding. Statistical significance was found at the .042 confidence level with principals that receive no funding indicating a stronger desirability for professional development training in this area. There was no statistical significance between the other funding levels.

		Comparisons by Title 1 Funding		Mean Difference	Significance
7	Raising the achievement levels of minority students	Schoolwide	Title 1	-.441	.322
			None	.075	.990
		Title 1	Schoolwide	.441	.322
			None	.516(*)	.042*
		None	Schoolwide	-.075	.990
		Title 1	-.516(*)	.042*	
12	Guiding my learning community through the changes in attitude and behavior that high stakes accountability environment demands	Schoolwide	Title 1	-.647(*)	.002*
			None	-.369	.128
		Title 1	Schoolwide	.647(*)	.002*
			None	.278	.162
		None	Schoolwide	.369	.128
		Title 1	-.278	.162	

Note: Those with a bold asterisk have statistical difference at the alpha of < 0.05

12 – Guiding my learning community through the changes in attitude and behavior that high stakes accountability environment demands.

Statistical significance was found at the $p = .002$ level between principals receiving Schoolwide Title 1 funding and principals who receive only Title 1 funding. Principals from schools receiving Schoolwide Title 1 funding showed stronger desirability for professional development training than schools only receiving funding. There was no statistical significance between the other funding levels.

Research Question 2.8

Sub-question 2.8: Are differences in principals’ desirability concerning professional development related to the school’s current status in meeting AYP?

In order to answer this question, an ANOVA was utilized. When differences among the percentage of children with limited English proficiency was determined to be statistically significant, the post-hoc Scheffe test was utilized to determine differences between the sub-groups. For the purpose of this study, Title 1 Status levels were divided into four levels: Level 1 - Fully Accredited, Level 2 - Accredited with Warning, Level 3 - Accreditation Denied, and Level 4 - Conditionally Accredited.

Table 23: Differences in Principal Perceptions by Current Accreditation Status							
		Accreditation Status	N	Mean	Standard Deviation	F value	Significance
16	Understanding the foundations of effective special education	Full	88	1.55	.585	2.917	.038*
		Warning	10	1.10	.316		
		Denied	2	1.00	.000		
		Conditional	2	1.00	.000		
20	Visualizing the future of my specific learning community while meeting the adjustment needs of my community	Full	88	1.98	.742	2.331	.079
		Warning	10	1.40	.516		
		Denied	2	1.50	.707		
		Conditional	2	1.50	.707		

Note: Those with a bold asterisk have statistical difference at the alpha of < 0.05

As observed in Table 23, the analysis of variance revealed the following as statistically significant:

10 - Raising the achievement levels of students with disabilities.

In order to determine where differences occurred between groups, a post-hoc Scheffe test was utilized. There was no statistical significance within groups for current accreditation status. This means that differences could not be attributed to groups based on a pair-wise comparison. The relationships between the levels of the variables is too complex to be analyzed by the Scheffe test.

Research Question 3

How do principals rank their desirability for professional development as it relates to meeting the high stakes accountability of No Child Left Behind Act?

Each of the twenty desirability statements were rank-ordered from the highest mean desirability preference to lowest mean desirability preference. Those statements rated with the highest desirability concerned principal desirability to raise the achievement scores of students with disabilities and students living in poverty, as well as principal desirability to ensure that teachers are trained in research-based curriculum.

Rank Order	Statement Number	Statement	Mean
1 st	10	Raising the achievement levels of students with disabilities	5.72
2 nd	3	Ensuring that my teachers are trained in research-based instructional methods	5.55
3 rd	8	Raising the achievement levels of students living in poverty	4.86
4 th	7	Raising the achievement levels of minority students	4.06
5 th	14	Knowing what constitutes good instructional practice	3.36
6 th	15	Coaching and guiding teachers in the continual improvement of their educational knowledge and practice	3.35
7 th	2	Implementing research-based curricula	2.87
8 th	4	Providing core reading knowledge to novice teachers who did not get this training in college	2.77
	16	Understanding the foundations of effective special education	2.77
9 th	13	Designing curriculum that meets the learning needs of all students and is aligned with state and local standards	2.67
10 th	11	Understanding data-driven decision making	2.51

DISCUSSION AND CONCLUSION

As previously discussed, principals today are held accountable for ensuring that all groups of students – economically disadvantaged, racial or ethnic minorities, students with disabilities, and English language learners – make state-defined “annual yearly progress” targets (Anthes, 2002). However, according to Thune (1997), principals are being forced to operate educational programs under a growing number of federal and state mandates with limited knowledge and available resources.

This study's primary purpose was to investigate the perceptions of Virginia principals regarding their desirability for professional development as it relates to the high stakes accountability. This study revealed important information about principals' professional development desires for training in order to better meet current federal and state accountability mandates. In fourteen of the twenty statements of desirability, principals indicated some level of desirability toward professional development training. Overall, the principals clearly assessed their desirability for professional development training to be moderate to high.

Professional Development Preferences

The three statements in which principals had the greatest desire for training both in Section A (rating of desirability) and Section C (ranking of desirability) were: #3 - Ensuring that my teachers are trained in research-based instructional methods, #10 - Raising the achievement levels of students with disabilities, and #8 - Raising the achievement levels of students living in poverty. The fact that these three categories matched in both rating of desirability and ranking of desirability for professional development clearly shows that these three topics are essential components in any principal professional development program.

That principals desire more professional development in such categories is not surprising. The growing focus on testing requires that principals have teachers within their buildings who are trained in research-based instructional methods. The NCLB Act recognizes the use of proven, research-based instructional methods as one factor which makes a difference in providing children with a quality education, for, as the Act states, "Teachers must be equipped with the most current, research-based instructional tools to help them do their job" (U.S. Department of Education, 2007). A primary focus of this law is the requirement that school districts and individual schools use effective research-based remediation programs (Wright & Wright, 2007). This is consistent with the findings of this study, in which 77% of Virginia principals responded with a strong desirability for professional development in ensuring that teachers are trained in research-based curricula. Consequently, Virginia school leaders who hire inadequately prepared teachers must be ready to provide in-service professional development targeted for specific research-based curricula, instructional methods, and programs.

The Institute for Educational Leadership (2000) includes working with teachers to strengthen their teaching skills as being a crucial role principals can play in improving teaching and learning. Principals must understand the instructional programs of their school divisions well enough to effectively guide teachers. Awareness of the school and teacher practices that impact student achievement is critical, but without effective leadership, there is less of a possibility that schools and districts will address these variables in a coherent and meaningful way (Miller, 2003).

Raising the achievement levels of students living in poverty is notably an area of strong desirability for professional development for Virginia principals in this study. According to

Secretary Margaret Spellings of the U.S. Department of Education (2007), “We must reward teachers and principals who make the greatest progress in improving student performance and closing the achievement gap. This is especially important in high-poverty schools, where students are less likely to be taught by a credentialed teacher” (p. 8). In this study, principals responded with the same type of desirability for increasing student performance for children in poverty as Secretary Margaret Spellings. Gerstl-Pepin (2006) stated, “An equal society begins with equally excellent schools, but we know our schools today are not equal” (p. 143). Poverty is considered to be an important factor in school failure (Rothstein, 2004). Principals in this survey rank-ordered raising the achievement levels of students living in poverty as the third highest professional development priority. Additionally, 78% of Virginia principals surveyed noted a strong desirability for professional development in raising achievement levels of students living in poverty, which supports the assertion that principals understand the significance of this NCLB subgroup of students. The principal must investigate how economic inequities might be hindering student success and shaping their students’ lives (Gerstl-Pepin, 2006). Therefore, professional development workshops on the culture of poverty must be provided to assist principals in increasing student success in spite of such economic imbalance. As one teacher noted after participating in workshops on poverty, “It helped me realize that our school was operating through a middle-class lens and that our kids didn’t necessarily recognize that lens” (Gerstl-Pepin, 2006, p. 151).

Raising the achievement levels of students with disabilities was noted by 71% of the principals surveyed as being an area of importance for professional development. Additionally, raising the achievement levels of students with disabilities was rank-ordered as having the highest level of desirability for professional development. Such findings from the survey are consistent with the fact that “across the country, students with disabilities have made progress on state assessment, however, many schools are not making Adequate Yearly Progress (AYP) because of the overall academic performance of the special education subgroup measured against the set standard established by each state for all of its students” (Cole, 2006, p. 1).

While the expectation of any building level principal is that the building leader must be ready to face the daily challenges specific to special education programming, the principal is not equally expected to receive ongoing training and preparation in special education and knowledge in order to meet this requirement. Thus, there is a basic lack of training which predicates a lack of continued professional development in this area.

Thune (1997) states that it is critical for a school system to employ principals who have a basic knowledge and understanding of special education in order to meet the federal and state audits for special education. McLaughlin and Nolet (2004) note that it is critical for a building principal to act as a school leader by creating effective special education services for students. Every school principal need to understand the foundations of effective special education in today’s climate of high standards and high stakes accountability.

Since current mandates assure that the programs and services for children with disabilities are in absolute compliance with the law, building principals absolutely must be knowledgeable and prepared to supervise the array of special education services within their schools and to make decisions regarding best practices. Students with disabilities now have access to the same curriculum and high standards as all students. With such access comes the responsibility by principals to ensure that students with disabilities continue to experience an increase in achievement levels.

While principals suggested strong desirability for professional development in the above noted areas, the desirability statements that principals least desired are equally interesting. When principals were asked to rank twenty desirability statements, they rated visualizing the future of their specific learning community while meeting the adjustment needs of their community, redesigning their school in order to increase their school's effectiveness, and preparing for sudden increases in student population as their schools' effectiveness increases as being the least desirable fields for professional development. As all three statements speak to professional learning communities, the fact that principals ranked these as having little desirability is noteworthy. Interestingly, DuFour (2001) contended that while educators are not typically against creating a professional learning community, they may not know where to begin given all the demands on them. He contended that to create a professional learning community, one must focus on learning rather than teaching (2004), yet this is in direct conflict with NCLB which places its thrust of impact on ensuring that teachers meet "highly qualified" standards in the content areas they are assigned to teach. Teachers are responsible for the gains made by their students and must focus their efforts on perfecting their teaching skills. Professional learning communities require that every professional within the school must work with their colleagues to ensure that students learn, to achieve a culture of collaboration, and to judge their effectiveness on the basis of student achievement results (DuFour, 2004). There is solid research to support that the concepts found within professional learning communities should drive school districts today (DuFour, 2003). Professional learning communities have been shown to have positive influence on student achievement (Dufour, 2001). The results from this study support further investigation into why principals noted such non-desirability for professional development in this area.

PROFESSIONAL DEVELOPMENT DIFFERENCES

Professional desirability differences were found among principals based on their experience levels. Overall, principals with 11-20 years of experience demonstrated a stronger desire for professional development than less veteran principals or principals having 20+ years of experience. Interestingly enough, research often tends to focus on the novice principal rather than the veteran principal as needing professional development. In fact, research often supports a more veteran principal, such as those principals having 11-20 years of building experience,

serving as mentor principals and offering to mold prospective principals (Fleck, 2008). However, consistent with these findings are current accountability demands, which challenge principals to succeed and sustain longevity in their positions (Fleck, 2008), and principals beyond the beginner phase still demonstrate a desirability for professional development. Hence, every Virginia school district should remain committed to continued professional growth opportunities for principals at all experience levels.

Professional desirability differences were found by principals based on their percentages of impoverished children within their total school population. Principals reporting groups of 75-100% impoverished children reflected a stronger desirability for professional development in order to redesign their schools to increase their schools' effectiveness, raising the achievement levels of students with English as second language, and raising the achievement levels of students with disabilities. This supports the assertion made by Brooks (2004) that economic factors are critical to understanding achievement inequalities. Although the public system alone is often held responsible for achievement gaps between children living in poverty and children from affluent families (Gerstl-Pepin, 2006), these findings support that principals are looking at "the bigger picture" to acknowledge this group of children and focus on professional development that will support them in closing such achievement gaps. School districts should focus on professional development for principals which will enhance understanding of economic inequities and their impact to student achievement.

Professional desirability differences were found between principals receiving Title 1 funding and those principals either receiving Schoolwide Title 1 funding or not receiving Title 1 funding at all. Title 1 funding influences principal desirability for professional development because funding is a significant issue when addressing local responsibility under NCLB and the subsequently ever-increasing demands placed on schools. A 2006 report from the Center on Education Policy (American Teacher, 2006) warned that for schools struggling to meet higher AYP targets, "funds provided by NCLB to help...are often simply not there" (p. 6). In order for principals to be able to meet ongoing and increasing accountability demands, Congress must look at funding bills which will stabilize the underfunding and cuts in funding of Title 1 funds.

IMPLICATIONS FOR PRACTICE

Even though desirability statements were rank-ordered based on their mean, a comparison of the means was conducted to determine clusters of relative importance. Six clusters were identified and should provide practical significance when leaders consider implementing desirability preferences into professional development practices. Practically speaking, when considering professional development, the first three desirability statements were found to have equal importance. Hence, principals' greatest levels of desirability reveal that professional development should focus on the following cluster of professional topics, rather than just the highest rank-ordered statement of desirability: Ensuring that teachers are trained in

research-based instructional methods, raising the achievement levels of students with disabilities, and raising the achievement levels of students living in poverty.

This has implications for school divisions and professional organizations when determining funding for professional development workshops. Practically speaking, rather than funding professional development for one single area of desirability, funding should be offered to the highest ranked cluster of principal desirability for professional development. Additionally, this study suggests that whenever possible, teachers should be trained in research-based instructional methods, professional development workshops on poverty should be provided to assist principals in increasing student success in spite of economic imbalance, educational leaders should examine current research-based instructional methods and content taught at the college level to determine if college course requirements should increase or incorporate a stronger emphasis specific to research-based instructional methods, and that educational leaders should ensure that professional development training programs for principals are designed and available which focus on raising the achievement levels of students with disabilities and minority students.

Further research might be considered to determine if differences in principals' desirability for professional development training exist based on the school's level of funding received for professional development training, the professional development training principals receive within their district, the perceived support principals receive from Central Office Administration, or principals' demographic location (e.g. urban, suburban, rural). Furthermore, does the principals' previous training, experiences, or level of education influence their desirability for professional development training? What other factors might principals suggest as having a strong influence on student academic achievement? What other factors might principals suggest as having a strong desirability for professional development training? Finally, future research might consider why statistically significant differences in principals' desirability exist as related to their school level, years of experience, percentage of impoverished children in the total school population, and current Title 1 status.

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