Superintendents' Beliefs and Behaviors Regarding Instructional Leadership Standards Reform*

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Abstract

This study examined Alabama school superintendents' perceptions of the new Alabama instructional leadership standards as related to the superintendency, and superintendents' professional needs related to the knowledge indicators in the standards. Also explored were superintendents' perceptions towards professional development delivery methods, which standards are most important for increasing student achievement, how superintendents allocate their time among the standards, barriers that hinder or prevent superintendents from implementing the standards, and whether district demographic variables impacted superintendents' perceptions. No significant difference in time allocation in relation to district enrollment was indicated and district enrollment did not significantly impact superintendents' ranking of the importance of the standards for increasing student achievement. Teaching and learning was identified as the most important standard for improving student achievement, followed by planning for continuous improvement. Time, financial restraints, and resistance to change were identified as the most significant barriers to implementing the leadership standards.

1 *The International Journal of Educational Leadership Preparation*, Volume 6, Number 1, January - March, 2011, ISSN 2155-9635

NOTE: This manuscript has been peer-reviewed, accepted, and endorsed by the National Council of Professors of Educational Administration (NCPEA) as a significant contribution to the scholarship

*Version 1.3: Feb 12, 2011 4:05 pm US/Central
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and practice of education administration. In addition to publication in the Connexions Content Commons, this module is published in the *International Journal of Educational Leadership Preparation*,[1] Volume 6, Number 1 (January - March, 2011), ISSN 2155-9635. Formatted and edited in Connexions by Theodore Creighton and Brad Bizzell, Virginia Tech and Janet Tareilo, Stephen F. Austin State University.

2 Sumario en espanol

Este estudio revisó Alabama educa las percepciones de supervisores de la nueva Alabama estándares instruccionales de liderazgo como relacionado a la superintendencia, y las necesidades del profesional de supervisores relacionaron a los indicadores del conocimiento en los estándares. También explorado fueron las percepciones de supervisores hacia métodos profesionales de entrega de desarrollo, cuales estándares son más importantes para aumentar logro de estudiante, cómo supervisores asignan su tiempo entre los estándares, las barreras que dificultan o previenen a supervisores de aplicar los estándares, y si distrito variables demográficas impresionaron las percepciones de supervisores. Ninguna diferencia significativa en la asignación de tiempo en relación con la matriculación del distrito fue indicada y matriculación de distrito no impresionó apreciablemente supervisores que sitúan de la importancia de los estándares para aumentar logro de estudiante. La enseñanza y aprender fueron identificados como el estándar más importante para mejorar logro de estudiante, seguido planificación para la mejora continua. El tiempo, restricciones financieras, y la resistencia para cambiar fueron identificados como las barreras más significativas a aplicar los estándares de liderazgo.

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3 Introduction

Hess and Kelly (2007) maintain that, "school leadership is the key to school improvement" (p. 244). Research on the impact of leadership on student learning found that leadership is the second most important school-related factor impacting student achievement (Leithwood, Louis, Anderson, & Wahlstrom, 2004). According to Leithwood et al., "The total (direct and indirect) effects of leadership on student learning account for about a quarter of total school effects" (p. 5). Leithwood et al. support that successful leadership has been an underestimated factor in improving students' learning and may play a highly significant part in improving students' learning. Ervay (2006) adds, "Academic leadership has always been important because a teacher's success is contingent on the professional culture in which he or she works, one that either encourages or discourages professional and scholastic growth" (p. 78).

Many national reports and commissions' findings scrutinized public education and challenged the purpose, nature, and direction of public education in the United States (Bjork, Kowalski, & Young, 2005). In response to these critical findings, reform initiatives have been adopted, implemented, and disrupted to match politically motivated educational agendas associated with civil rights, poverty, war, and other prevalent social issues existing at that period of time (Kowalski, 2006).

More recently, concern among business, national, and state leaders, who concluded that public schools are in crises, escalated into a national call for educational accountability through high stakes testing (Kowalski, 2006). This call was answered with Congress' passing of the No Child Left Behind Act of 2001 (NCLB), which placed great pressure on local district leadership, school superintendents, to demonstrate effective leadership (Ashbaugh, 2000).

The role of educational leaders has transformed as result of the current reform climate and instructional leaders must now adapt quickly to a constantly changing environment in order to be successful. Today's instructional leaders are expected to improve the quality of teachers, ensure school safety, and develop

[1] http://www.ncpeapublications.org

a community of learners that includes staff, parent groups, and business partners. Today's instructional leaders are faced with the challenge of creatively managing all of their resources–people, time, and money–to support school improvement while leading learning experiences focused on improving student achievement through improved instructional practices. Consequently, new accountability approaches hold superintendents accountable for school and student performance. Sanctions or rewards are levied to push toward meeting annual yearly progress (AYP). Student performance and yearly progress are significant factors in determining the success of school superintendents (Peterson, 2004).

The present standards-based accountability movement holds teachers and administrators accountable for producing results instead of effort (Coffe & Lashway, 2002). Hadderman (2000) contended that standards-driven reform initiatives are supported by policymakers because of their abilities to serve as a mechanism to increase student achievement of minorities, while holding schools accountable. Interest into the district's leadership role in educational change has increased because of the emergence of standards-based reforms and accountability systems (Leithwood et al., 2004). States' policymakers have adopted strategies based on standards-driven accountability by means of systematic testing, explicit performance standards, and levying rewards and sanctions as consequences for results.

Leithwood et al.'s (2004) research and findings by the Southern Regional Education Board provided fuel for developing reform initiatives targeting Alabama leadership practices (Alabama Governor's Congress on School Leadership, 2005). Governor Bob Riley and the Alabama State Superintendent of Education, Joseph B. Morton, launched a School Leadership Improvement Initiative entitled the *AlabamaGovernor's Congress on School Leadership* on November 20, 2004, to address problems identified with leadership preparation in Alabama. The Governor's Congress was comprised of 100 selected delegates, including business and community leaders; representatives from educational foundations, agencies, and professional associations; and participants from K-12, higher education institutions, and the Alabama State Department of Education. The 100 delegates were divided into the following task forces:

Task Force One: Standards for preparing and developing principals as instructional leaders.
Task Force Two: Selection and preparation of school leaders.
Task Force Three: Certification of school leaders.
Task Force Four: Professional development to support school leadership.
Task Force Five: Incentives and working conditions to attract and retain a quality principal in every Alabama school.

The Congress recommended the development of new leadership standards reflective of the abilities and knowledge necessary for improving student achievement. Eight new standards were developed, based on findings of the Southern Regional Education Board (SREB), local instructional leadership evaluation and standards from the Southern Association of Colleges and Schools (SACS), the Interstate School Leaders Licensure Consortium (ISLLC), and standards from 22 other states. Each standard consisted of knowledge and ability indicators. The standards are as follows:

Standard 1: Planning for Continuous Improvement: Engages the school community in developing and maintaining a shared vision; plans effectively; uses critical thinking and problem-solving techniques; collects, analyzes, and interprets data; allocates resources; and evaluates results for the purpose of continuous school improvement.

Standard 2: Teaching and Learning: Promotes and monitors the success of all students in the learning environment by collaboratively aligning the curriculum; by aligning the instruction and the assessment processes to ensure effective student achievement; and by using a variety of benchmarks, learning expectations, and feedback measures to ensure accountability.

Standard 3: Human Resources Development: Recruits, selects, organizes, evaluates, and mentors faculty and staff to accomplish school and system goals. Works collaboratively with the school faculty and staff to plan and implement effective professional development that is based upon student needs and that promotes both individual and organizational growth and leads to improved teaching and learning. Initiates and nurtures interpersonal relationships to facilitate teamwork and enhance student achievement.

Standard 4: Diversity: Responds to and influences the larger personal, political, social, economic, legal, and cultural context in the classroom, school, and the local community while addressing diverse student needs to ensure the success of all students.

Standard 5: Community and Stakeholder Relationships: Identifies the unique characteristics of the community to create and sustain mutually supportive family-school-community relations

Standard 6: Technology: Plans, implements, and evaluates the effective integration of current technologies and electronic tools in teaching, management, research, and communication.

Standard 7: Management of the Learning Organization: Manages the organization, facilities, and financial resources; implements operational plans; and promotes collaboration to create a safe and effective learning environment.

Standard 8: Ethics: Demonstrates honesty, integrity, and fairness to guide school policies and practices consistent with current legal and ethical standards for professional educators.

New ideas have to be established and professional development programs have to be revamped in order to enable leaders to reach their required student achievement goals (Kelley, Heneman, & Milanowski, 2002). This cannot be completed without developing an understanding of superintendents' perceptions of their work (Bredeson & Johansson, 1997) and utilizing technology to overcome the barriers of distance, location, time, and financial restraints.

4 Purpose

The study was designed to (a) determine which standards are most important for improving student achievement, (b) identify barriers for implementing the instructional leadership standards, (c) explore how Alabama superintendents allocate their time among the standards, (d) explore Alabama superintendents' professional development delivery preferences, and (e) explore the impact of demographic variables on Alabama school superintendents' time allocation among the new leadership standards.

5 Research Questions

The study was guided by the following research questions.

Research Question 1. According to Alabama superintendents, which instructional leadership standards are most important for superintendents in increasing student achievement?

Research Question 2. What do Alabama superintendents perceive as barriers for implementing the new leadership standards?

Research Question 3. Is there a difference in Alabama superintendents' time allocation among the new leadership standards based on district demographic variables?

Research Question 4. What are Alabama superintendents' professional development delivery preferences for each of the new leadership standards?

6 Research Methods

This study used a mixed method design. The independent variables in this study included district enrollment, district wealth as measured by mill equivalent and expenditures per child, and community socioeconomic status as measured by the percentage of students receiving free and/or reduced lunches. For this study a mill "is equal to one-tenth of a cent (1/10 of 1 cent), and in connection with ad valorem taxes, a mill is often expressed in terms of 10 cents on each $100 of assessed value" (Alabama Department of Education, 2007, p. 8-1). The mill equivalent presents the total amount of revenue collected locally for public school purposes, divided by the value of one regular system mill of ad valorem tax with a state average of 31.83 mill equivalents and a state requirement of a minimum of 10 mill equivalents (Alabama Department of Education, 2007)and a state requirement of a minimum of 10 mill equivalents (Alabama Department of Education, 2005). School systems with 20.00 mills or less are considered poorer systems, while those with 40.16 mills or more are considered affluent.

Dependent variables included the following: (a) superintendents' perceptions toward the importance of each standard in improving student achievement, (b) superintendents' time allocation among the leadership standards, (c) superintendents' perceptions toward barriers for implementing the leadership standards and (d) superintendents' perceptions toward professional development delivery preferences for the standards.

6.1 Participants

The participants for the study included all of Alabama's 134 public school superintendents from the 132 Alabama school systems and Alabama's School of Fine Arts and Department of Youth Services. The School Superintendents Association of Alabama provided an endorsement to the study and electronically sent requests to all superintendents for completing the survey instrument. A total of 55 superintendents responded for a response rate of 41%; however, 39 respondents completed the entire survey for a completion rate of 29%.

6.2 Instrumentation

The survey employed for this study was a researcher-developed survey that was administered online. Items were developed based on a review of the literature and the current Alabama Leadership Standards. The survey consisted of ranking-order scaling questions and one-answer multiple-choice questions. Participants were asked to respond to open-ended questions using comment boxes. Other types of questions included rankings based on importance of the standards and one-answer multiple choice. The standards utilized in the instrument were taken verbatim from the Governor's Congress' publication, and content validity was established by a panel of experts in the area.

The instrument was divided into the following sections: (a) district demographics, (b) Alabama superintendents' perceptions toward the importance of the leadership standards for improving student achievement, (c) Alabama superintendents' perceptions toward barriers to implementing the leadership standards, (d) Alabama superintendents' time allotment for addressing each standard, and (e) Alabama superintendents' professional development delivery preferences for each of the leadership standards. A response was required for all items before the participant was able to continue to the next section. If the participant left an item blank, the blank item was identified so that the participant could complete the item. Superintendents were also allowed to opt out at anytime.

Section 1 consisted of demographic variables: district's student enrollment (ADM), percentage of students receiving free and/or reduced lunches, total expenditures per child, and the mill equivalent for the district. *Section 2* asked superintendents to rank the leadership standards in relation to importance for increasing student achievement with "1" being the most important and "8" being the least important. The*Section 3* asked superintendents to identify how much time they allotted toward addressing each of the eight standards. The online survey required the sum of all entries to total 100%. *Section 4* asked superintendents to identify barriers Alabama superintendents face in relation to implementing the new leadership standards. *Section 5* asked superintendents to identify professional development delivery preferences for each of the new instructional leadership standards. Superintendents identified preferred delivery preferences by ranking the following delivery preferences with "1" being the most preferred and "6" being the least preferred: face-to-face workshops, seminars/conferences, webinars via web conferencing, CD-based training modules, online archived training videos, using combinations of delivery methods. A delivery-method combination refers to a combination of two or more of the preferred delivery preferences, such as a combination of face-to-face and webinars.

6.3 Data Collection

The survey for this study was administered online. The executive director of the School Superintendents' Association of Alabama (SSA) sent an email request to all superintendents that contained a description of the study and an informed consent statement. Participation was monitored through the online survey software

and an additional request was sent by the executive director of SSA. The survey was made accessible over a 2-week period followed by a 1-week follow-up period.

6.4 Data Analysis

All quantitative data were analyzed using SPSS with levels of significance tested at .05. Data analyses were conducted using descriptive statistics, Kruskal-Wallis analysis of variance and Mann-Whitney non-parametric tests. Kruskal-Wallis was used in this study to analyze ordinal data. According to Best and Kahn (2006), nonparametric tests should be applied to statistical treatments of data types that are either nominal (counted) or ordinal (ranked).

7 Results

7.1 Demographic Data

Participants were asked to respond to several demographic items related to their district, as reported in the state's 2006-2007 report. The items included ADM, percentage of total students receiving free and/or reduced lunches for 2006-2007, total expenditures per child, and the local mill equivalent for 2006-2007. Most of the respondents (33%) reported that their systems had an ADM of 0 to 1,680 students, 17.9% had an ADM of 1681 to 2602, 28.2% had an ADM of 2603 to 3582, 10.3% had an ADM of 3583 to 7771, and 10.3% had an ADM of 7772 and above.

For students receiving free and reduced lunches, 10.3% of the systems had 0 to 39.85% of students receiving free and reduced lunches, 25.6% of systems had 39.86% to 51.02%, 28.2% of systems had 51.03% to 59.18%, 15.4% of systems had 59.19% to 69.53%, and 20.5% of systems had 69.54% to 100% of students receiving free and reduced lunches. When examining total expenditures per child, 28.2% of systems were in the \$0-\$6,248 range, 20.5% were in the \$6,249 to 6,851 range, 38.5% were in the \$7,755 to \$8,357 range, and 38.5% were in the \$8,358 and above range. An examination of local mills revealed that 59% of the respondents were from poorer districts (below 20.00 mills), 12.8% had mills of 20.01 to 26.10; 12.8% had mills of 26.11 to 34.12, 5.1% had mills of 34.13 to 40.15, and 10.3% had mills of 40.16 and above.

7.2 Research Questions

Research Question 1. Research Question 1 asked, "Which instructional leadership standards are most important for superintendents in increasing student achievement?" Respondents were asked to rank the standards from 1 to 8, with 1 being the most important. Data were examined using a cross table of frequencies, means, and percentages. Thirty-five percent of respondents ranked Standard 2 (teaching and learning) as the most important standard, while 0% of the respondents identified Standard 4 (diversity) as the most important standard. Standard 1 (planning for continuous improvement) was identified by 46.1% of respondents as either the most important or second most important standard. At the same time, 30.8% of superintendents ranked Standard 4 (diversity) as the least important standard, while 2.6% ranked Standard 2 (teaching and learning) as the least important standard for increasing student achievement (see Table 1).

Leadership Standards' Ranking of Importance

Standard				Rank				
continued on next page								

	1	2	3	4	5	6	7	8
	f (%)	f (%)	f (%)	f (%)	f (%)	f (%)	f (%)	f (%)
1	7(17.9%)	11(28.2%)	9(23.1%)	5(12.8%)	5(12.8%)	0	2(5.1%)	0
2	14(35.9%)	11(28.2%)	7(17.9%)	5(12.8%)	1(2.6%)	0	0	1(2.6%)
3	3(7.7%)	5(12.8%)	6(15.4%)	5(12.8%)	7(17.9%)	4(10.3%)	5(12.8%)	4(10.3%)
4	0	1(2.6%)	1(2.6%)	3(7.7%)	5(12.8%)	10(25.6%)	7(17.9%)	12(30.8%)
5	1(2.6%)	0	3(7.7%)	4(10.3%)	5(12.8%)	14(35.9%)	6(15.4%)	6(15.4%)
6	0	0	1(2.6%)	7(17.9%)	6(15.4%)	7(17.9%)	7(17.9%)	11(28.2%)
7	1(2.6%)	8(20.5%)	6(15.4%)	7(17.9%)	7(17.9%)	2(5.1%)	7(17.9%)	1(2.6%)
8	13(33.3%)	3(7.7%)	6(15.4%)	3(7.7%)	3(7.7%)	2(5.1%)	5(12.8%)	4(10.3%)

Table 1

Rankings were combined for each standard and a Kruskal-Wallis test examined whether variance existed between respondents' rankings of standards. A significant difference was found ($\chi 2$ (7) = 101.8; p = .000). Mann-Whitney follow-up tests compared respondents' perceptions of importance between the standards. Using the Bonferroni error correction, the tested alpha level was .0018. The rankings established from examining the results of the Mann-Whitney follow-up tests are shown in Table 2.

Ranking of Standards' Importance

Ranking	M	SD	Most important ranking	Least important ranking
Standard 2	2.31	1.472	8	1
Standard 1	2.95	1.589	7	1
Standard 8	3.67	2.568	8	1
Standard 7	4.28	1.905	8	1
Standard 3	4.54	2.138	8	1
Standard 5	5.77	1.630	8	1
Standard 6	6.15	1.565	8	3
Standard 4	6.33	1.562	8	2

Table 2

The following ranking of importance was established for the standards from most important to least important: Standard 2, teaching and learning; Standard 1, planning for continuous improvement; Standard 8, ethics; Standard 7, management of the learning organization; Standard 3, human resource development; Standard 5, community and stakeholder relationships; Standard 6, technology; and Standard 4, diversity. Alabama school superintendents identified teaching and learning as the most important standard for increasing student achievement.

Research Question 2. Research Question 2 asked, "What do Alabama superintendents perceive as barriers for implementing the new leadership standards?" Respondents were asked to identify barriers for implementing the new leadership standards by typing in responses to open-ended questions into a comment box. Based on the 25 responses, qualitative analyses were applied and 10 themes for barriers were identified: (a) time, (b) money, (c) leadership, (d) resistance to change, (e) human resource development, (f) politics, (g) lack

of vision, (h) parental involvement, (i) misuse of resources, and (j) utilization of outdated ideas with time, money, and resistance to change as the most common barriers.

Research Question 3. Research Question 3 asked, "Is there a difference in Alabama superintendents' time allocation among the new leadership standards based on district demographic variables?" The means for the percentage of time superintendents allocate to each instructional leadership standard are shown in Table 3.

Superintendents' Time Allocation Among Standards

Subscale	*M* %	SD	Lowestindividual %	Highestindividual %
Standard 2	26.36%	13.886	5%	65%
Standard 1	17.36%	8.057	5%	45%
Standard 7	14.59%	9.939	1%	50%
Standard 6	10.92%	5.377	5%	22%
Standard 3	10.49%	5.581	2%	25%
Standard 5	7.97%	4.380	1%	20%
Standard 8	6.17%	3.04	1%	15%
Standard 4	6.14%	3.197	1%	15%

Table 3

An examination of means was conducted to compare respondents' time allocation among standards. Analysis revealed that respondents spent 26.36% of their time addressing Standard 2 (teaching and learning), 17.36% of their time addressing Standard 1 (planning for continuous improvement), and 14.59% of their time addressing Standard 7 (management of the learning organization). The least amount of time was spent addressing Standard 4 (diversity). Respondents spent 6.14% of their time addressing Standard 4 (diversity), 6.17% of their time addressing Standard 8 (ethics), and 7.97% of their time addressing Standard 5 (community and stakeholder relationships). One respondent reported spending 65% of his/her time addressing Standard 2 (teaching and learning).

Rankings were combined for each standard and a Kruskal-Wallis test was computed to determine whether variance between respondents' ranking of standards existed. A significant difference was found among the overall rankings between standards' groups ($\chi 2$ (7) = 119.5; p = 0.00). Mann Whitney follow-up tests compared relationships between the standards' groupings. Using the Bonferroni error correction, the tested alpha level was .0018. Superintendents' time allocation among standards were ranked as follows: (a) Standard 2, teaching and learning; (b) Standard 1, planning for continuous improvement; (c) Standard 7, management of the learning organization; (d) Standard 6, technology; (e) Standard 3, human resource development; (f) Standard 5, community and stakeholder relationships; (g) Standard 4, diversity; and (h) Standard 8, ethics. Table 4 presents the test statistics for the Kruskal-Wallis tests of variance between respondents' rankings of standards' importance and district demographic variables.

Leadership Standards Kruskal-Wallis Test Statistics for Grouping Variable: ADM

	1	2	3	4	5	6	7	8
Chi-Square	1.785	.073	6.610	1.180	.027	.114	.620	3.768
df	1	1	1	1	1	1	1	1
Asymp. Sig.	.182	.787	.010	.277	.870	.736	.431	.052

Table 4

Kruskal-Wallis tests of variance for time allocation among standards and district demographic variables revealed a significant relationship between Standard 3 (human resource development) and ADM with {$\chi 2$ (1) = 6.610; $p = .010$} (Table 4). ADM categories were combined into the following groupings: 0 to 2,602 students ($N = 20$) and more than 2,603 students ($N = 19$). Respondents with enrollments greater than 2,603 students spent significantly more time addressing Standard 3 (human resource development) than respondents with enrollments of 0 to 2,602 students.

Research Question 4. Research Question 4 asked, "What are Alabama superintendents' professional development delivery preferences for each of the new leadership standards?" Respondents were asked to rank the following delivery preferences with 1 being the most preferred and 6 being the least preferred: (a) face-to-face workshops (small groups), (b) seminars/conferences, (c) webinars via web conferencing, (d) CD-based training modules, (e) Web-based online training modules, and (f) using a combination of delivery methods. Data collected from the ranking scale were examined using a cross table of frequencies, percentages, and means. Most participants (56.4%) ranked face-to-face workshops as the most preferred professional development delivery preference followed by a combination of delivery methods (25.6%). A majority of respondents ranked CD-based training modules as the least preferred delivery preference (53.8%) (see Table 5).

Professional Development Delivery Preference Ranking Frequency (Percentages)

Standard	1	2	3	4	5	6
Face/Face	22(56.4)%	12(30.8%)	3(7.7%)	1(2.6)	0	1(2.6%)
Combination	10(25.6%)	4(10.3%)	11(28.2%)	7(17.9%)	2(5.1%)	5(12.8%)
Seminars	4(10.3%)	15(38.5%)	12(30.8%)	4(10.3%)	2(5.1%)	2(5.1%)
Webinars	1(2.6%)	6(15.4%)	5(12.8%)	13(33.3%)	8(20.5%)	6(15.4%)
CD	1(2.6%)	0	0	4(10.3%)	13(33.3%)	21(53.8%)
Online	1(2.6%)	2(5.1%)	8(20.5%)	10(25.6%)	14(35.9%)	4(10.3%)

Table 5

Results were based on a negative relationship between delivery preferences and rankings. Therefore, higher rankings were perceived as less preferred professional development delivery preferences.

An open-ended question was also used to collect additional data for this research question. Responses were examined using content analysis and inductive reasoning to examine patterns in the data and develop themes and categories based on constant comparisons. Respondents were asked to identify why they ranked the professional development delivery preferences as they did. Twenty-nine participants (74%) responded to the question and the following themes, with frequencies, were established: (a) face-to-face interaction with peers (14), (b) in-depth questioning/discussion (6), (c) customized to participants' needs and preferences (3), (d) customized by topic/materials (3), (e) variety of delivery methods (2), (f) hands-on interactions (2), (g) small group size (2), (h) cost (2), (i) simultaneous interactions/feedback (1), (j) combination of large/small groups (1), (k) based on faculty feedback (1), and (l) no true ranking (1). The largest number of the respondents (48%) preferred face-to-face interaction with peers and delivery preferences that allowed for in-depth questioning/discussion/ dialogue (21%).

Following are sample responses:

- Depends on the topic and delivery method. If someone is providing information only and no feedback is necessary, long-distance and CDs would work. If you need input from attendees then you would need conferencing or on site delivery.
- Face to face has produced greater results and allows for direct interaction with and follow up the presenter. However, without the technology available, it is difficult to measure the effect of web based or webinars.

- Combinations provide a personal self acceptance of the materials being presented and makes use of the most highest technology services available.
- I do not feel that a true ranking can be made on a preferred type. The PD activity/session and the targeted group's skills/needs should determine the best method of delivery.
- Face to face has produced greater results and allows for direct interaction with and follow up the presenter. However, without the technology available, it is difficult to measure the effect of web based or webinars.
- Small groups allow more interaction, and CD seems to be the least effective for me due to time.
- I have always believed in face to face with q & A possibilities being the best presentation model.
- Prefer group training; opportunity to ask questions and collaborate with others.
- Potential for professional interaction and opportunity for hands on performance (I do, we do, you do model).
- I learn better when I am face to face with an instructor. I am very comfortable with the technology-based approach when cost is an issue.
- I believe face-to-face workshops are more effective. It has been my experience that seminars/conferences are an effective way to network and meet interesting people.
- I prefer delivery methods that allow for simultaneous interaction and feedback.
- I still believe face-to-face communication is still the best way to help in professional development.
- I feel more comfortable with hands on interaction.
- Enjoy getting to see other peers. A type of therapy.

8 Discussion

A major limitation of the study was the response rate. Results were somewhat skewed because of the low completion rate and the high participation of lower socioeconomic systems in comparison to their counterparts; therefore, findings may not be generalized to all Alabama superintendents. The study was also limited to the perceptions of elected and appointed Alabama school system superintendents and results may not be generalizable to other sample populations.Possible factors contributing to the low response rate may have included internet service or connectivity problems, pop-up blocker preventing the survey from opening, lack of acquaintance with the logo or brand of the survey tool, target audience may not have felt comfortable using the technology, fear of losing anonymity, web congestion, lack of convenient access to the internet, lack of time to complete the survey, or an unwillingness to participate in online surveys.

This study did not find a significant difference in time allocation in relation to district enrollment. However, findings did reveal that larger districts spent more time addressing human resources. This could be attributed to the fact that superintendents from larger districts are responsible for overseeing a larger work force than smaller districts. Higher numbers of personnel decisions have to be addressed in larger districts. Superintendents from larger districts are often able to delegate some responsibilities to a personnel director but are still legally responsible for making all personnel recommendations to the board. Findings were not consistent with previous studies, which supported that district enrollment significantly impacted superintendent's roles (Duea & Bishop, 1980; Glass, 1992) and ranking of standards' importance. Robinson (2004) found a significant statistical difference in Michigan public school superintendents' rankings of ISLLC standards' importance between small and large school districts. Munther (1997) found that superintendents' delegation of responsibilities and time allocation were significantly related to district enrollment.

This study found that the mills and the percentages of students receiving free and/or reduced lunches, which were used to reflect the socioeconomic status (SES) of the community, had no significant impact on how superintendents allocated their time. This did not agree with other studies that found that SES of the community influences how superintendents allocate their time (Hallinger & Murphy, 1983; Jones, 2004). Studies have also found that the level of funding impacted superintendents' roles and time allocation (Jones, 2004; Killeen & Sipple, 2000; Useem & Neild, 2001). This study utilized the district's level of spending per child to test for significance between the level of funding and superintendents' time allocation. No significant

impact was discovered, although findings may be influenced by the low participation rate, which consisted mostly of respondents with lower SES and funding contexts.

Alabama superintendents ranked teaching and learning as the most important standard for improving student achievement in this study. This is consistent with findings of Leithwood et al. (2004) that teaching and learning are the most important school-related factors impacting student achievement.

Alabama superintendents identified time, finances, and resistance to change as the major barriers to implementing the instructional leadership standards, which agrees with previous studies on barriers to the superintendency (Bredeson & Johansson, 1997; Harris & Lowery, 2004; O'Day, 2002). O'Day (2002) found that problematic relationships between internal and external sources of control dramatically impeded superintendents' ability to effectively implement reform initiatives and mandates. Bredeson and Johansson (1997) found that superintendents had to adjust their results to meet the direct and indirect demands of state mandates and various educational reform initiatives.

Alabama superintendents prefer face-to-face workshops for professional development followed by seminars/conferences and using a combination of delivery methods. They stressed the desire to have face-to-face interactions with peers and opportunities for in-depth questioning, discussions, and discourse in their responses. According to Browne-Ferringo and Glass (2005), professional development programs must integrate knowledge development through seminars, formal courses, field-based and guided learning experiences, and competency development grounded in personal self-assessment and performance evaluation by mentors and others. Current models of professional development have failed in helping change teacher practices because of their inability to tailor to specific needs and accommodate busy work/personal schedules (Sprague, 2007). Three participants supported Sprague with their suggestions that professional development should be customized to meet individual needs and delivered through a combination of methods. In order for mixed-methods training to be effective with Alabama superintendents, training must be provided to assist superintendents with overcoming possible barriers to web-based and distance learning such as the threat of technology, technical expertise, organizational change, social interaction quality, and administrative structure.

Alabama superintendents ranked their knowledge to discover practical approaches for developing and implementing successful technology planning and their knowledge to increase access to educational technologies for the school lowest when compared to all other knowledge indicators provided in the Alabama Instructional Leadership Standards. This finding and other findings in this study emphasize the need for school superintendents to become comfortable with new technologies and to model innovative uses of technology to empower educators, parents, and students. Leadership must experience and reflect on the use of technology as a productivity tool as well as a tool for professional learning, collaboration, communication, and growth. Superintendents should be viewed as the chief technology modeler of their school district and illustrate their commitment to changing school culture by showcasing innovative technology in their work with stakeholders (Krueger, 2008).

Superintendents are the key to successful implementation of instructional standards designed to increase student achievement. A school superintendent provides the vision and plan for accomplishing goals for the entire organization. Therefore, professional development must be created for leaders that focuses on utilizing technology for systemic improvement, promoting excellence in practice, and creating a digital-aged learning culture. In addition, the power of face-to-face interactions must not be ignored as we integrate emerging technologies and communication tools into professional learning and training programs. Emerging technology must become relevant and purposeful to those who make decisions. A vision is more likely to become a reality when its developer is knowledgeable of how to make it happen and has experienced the impact digital-age tools have on developing individuals professionally through his or her own practices.

9 References

Alabama Governor's Congress on School Leadership. (2005, May 11). *Executive Summary Governor's Congress on school leadership final report:* Retrieved September 15, 2008, from http://www.ti.state.al.us/gc/[2]

[2] http://www.ti.state.al.us/gc/

Alabama Department of Education. (2007). 2007 AYP general information: Interpretive guide. Retrieved on December 12, 2007, from http://alsde.mediaroom.com/index.php?s =40& item=54

Alabama Department of Education. (2005, January). School finance training program: Prepared in accordance with Act 2001-706 Section 16-1-38 of Code of Alabama 1975.

Ashbaugh, C. R. (2000). *The superintendent's role as instructional leader.* In P. M. Short & J. P. Scribner (Eds.), *Case studies of the superintendency* Lanham, MD: Scarecrow Press.

Best, J.W. & Kahn, J.V. (2006). Research in education. Boston: Pearson Education Inc.

Bjork, L. G., Kowalski, T. J., & Young, M. D. (2005). National education reform reports. In L. G. Bjork, & T. J. Kowalski (Eds.), *The contemporary superintendent* (pp. 45-70). Thousand Oaks, CA: Corwin Press.

Bredeson, P., & Johansson, O. (1997, April 1). Leadership for learning: A study of the instructional leadership roles of superintendents in Sweden and Wisconsin. (ERIC Document Reproduction Service No. ED411583). Retrieved April 17, 2007, from ERIC database.

Browne-Ferringo, T., & Glass, T. E. (2005). Superintendent as organizational manager**.** In L. G. Bjork & T. J. Kowalski (Eds.), *The contemporary superintendent preparation, practice, and development* (pp. 137-163). Thousand Oaks, CA: Corwin Press.

Coffey, E., & Lashway, L. (2002). School reform. Trends and Issues. (ERIC Document Reproduction Service No. ED472992). Retrieved May 24, 2007, from ERIC database.

Duea, J., & Bishop, W. (1980, August 1). PROBE examines time management, job priorities and stress among public school superintendents. (ERIC Document Reproduction Service No. ED197420).

Ervay, S. (2006). Academic leadership in America's public schools. *NASSP Bulletin*, *90*(2), 77-86. Retrieved November 25, 2007, doi:10.1177/01926 36506290175

Glass, T. (1992, January 1). The 1992 study of the American school superintendency: America's education leaders in a time of reform. (ERIC Document Reproduction Service No. ED370229) Retrieved September 24, 2008, from ERIC database.

Hadderman, M. (2000). Standards: The policy environment. *ERIC Digest 138,* 2.

Hallinger, P., & Murphy, J. (1983). Instructional leadership and school socioeconomic status: A preliminary investigation. *Administrator's Notebook*, *31*(5), 1-4. (ERIC Document Reproduction Service No. EJ316739.

Harris, S., Lowery, S., & Hopson, M. (2004). Superintendent perceptions of motivators and inhibitors for the superintendency. *Planning & Changing*, *35*(1/2), 108-126. Retrieved October 24, 2006, from Education Full Text database.

Hess, F., & Kelly, A. (2007). Learning to lead: What gets taught in principal-preparation programs. *Teachers College Record, 109*(1), 244-274. Retrieved January 28, 2008, from Academic Search Premier database.

Jones, K. L. (2004). The influences of context on superintendents' allocation of time. Ed.D. dissertation, Ohio University, United States, Ohio. Retrieved June 14, 2007, from ProQuest Digita l Dissertations database. (Publication No. AAT 3142041).

Kelley, C., Heneman, H., & Milanowski, A. (2002). Teacher motivation and school-based performance awards. *Educational Administration Quaterly*, *38*(3), 372-401.

Killeen, K., & Sipple, J. (2000, April 24). School consolidation and transportation policy: An empirical and institutional analysis. A working paper. Revised. (ERIC Document Reproduction Service No. ED447979) Retrieved September 18, 2008, from ERIC database.

Kowalski, T. K. (2006). *The school superintendent* (2nd ed.). Thousand Oaks, CA: Sage Publications.

Krueger, K. (2008). The Superintendent as Chief Technology Modeler. *School Administrator*, *65*(10), 8. Retrieved from Professional Development Collection database.

Leithwood, K., Louis, K., Anderson, S., & Wahlstrom, K. (2004). How leadership influences student learning. Review of Research. (ERIC Document Reproduction Service No. ED485932). Retrieved November 25, 2006, from ERIC database.

Munther, T. A. (1997). Superintendent work activity: Variation by school district size. Ed.D. dissertation, Washington State University, United States, Washington. Retrieved September 2, 2007, from Dissertations & Theses: Full Text database. (Publication No. AAT 9835862).

O'Day, J. (2002). Complexity, accountability, and school improvement. *Harvard Educational Review*, *72*(3), 293. (ERIC Document Reproduction Service No. EJ655018). Retrieved November 22, 2006, from ERIC database.

Petersen, G., & Young, M. (2004). The No Child Left Behind Act and its influence on current and future district leaders. *Journal of Law & Education*, *33*(3), 343-363. Retrieved October 19, 2006, from Education Full Text database.

Robinson, R. N. (2004). Michigan public school superintendents' perceptions of the Interstate Leadership Licensure Consortium standards for principals. Ed.D. dissertation, Wayne State University, United States, Michigan. Retrieved October 21, 2007, from Dissertations & Theses: Full Text database. (Publication No. AAT 3152334).

Sprague, D. (2007). Online professional development for teachers. *Journal of Technology and Teacher Education*, *15*(1), 145-149. Retrieved November 26, 2007, from Education Full Text database.

Useem, E., & Neild, R. (2001, May 1). Teacher staffing in the school district of Philadelphia: A report to the community. (ERIC Document Reproduction Service No. ED454352). Retrieved September 10, 2008, from ERIC database.