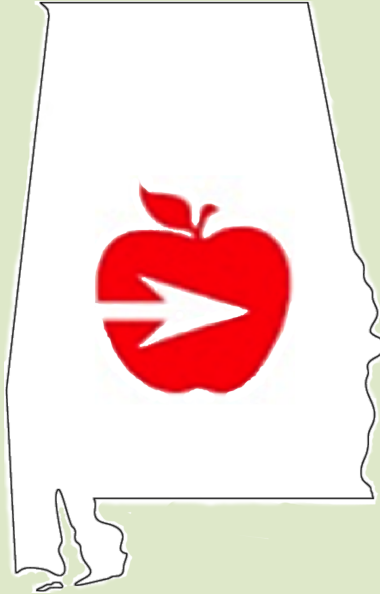


# **THE ALABAMA JOURNAL OF EDUCATIONAL LEADERSHIP**



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Editor  
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*Troy University Dothan Campus*

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The **Alabama Association of Professors of Educational Leadership (AAPEL)** is a non-profit professional society organized for the purpose of establishing and maintaining a collegial and collaborative organization in the State of Alabama. In addition, this organization exists for the purpose of:

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Deadline for submissions is April 1, 2016, in anticipation for an August 2016 publication date of the AAPEL Journal (AJEL) Volume 3, 2016. To submit materials for consideration, send one electronic copy of the manuscript and requested information, using Word or Word compatible word processing program to:

Dr. Tonya Conner  
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## **Note from the Editor**

Tonya Conner, Ed. D.  
*Troy University, Dothan*

Welcome to Volume 2 of the Alabama Journal of Educational Leadership (AJEL). AJEL uses a peer reviewed, triple-blind process upheld by the Alabama Association of Professors of Educational Leadership (AAPEL). AAPEL is celebrating the continued growth of AJEL with enthusiasm. Included are a variety of manuscripts stemming from a broad theme: Meeting the Challenge: Preparing Equipped, Empowered, and Effective Instructional Leaders.

The first article of AJEL begins with Grace and Harrington regarding the perceptions of parents and school climate. As you continue to read, you will learn how Edwards, Neill, and Faust explain their exploration of literacy coaching from the teachers' perspectives and improved student test scores. Next, Stinson explores the leadership of in-service teachers engaging students using Web 2.0. Finally, Connell, Cobia, and Hodge reveal the journey of female superintendents from an under-represented gender perspective.

As we move forward, the continuation of various manuscripts for publication consideration are requested. We encourage submissions from novice and experienced faculty as well as students. The Alabama Journal of Educational Leadership is a refereed journal using a triple-blind review process. To learn more about the AJEL submission process, please visit NCPEA at <http://www.ncpeapublications.org/index.php/ncpea-press> for the new 2016 Call for Papers.

I would like to acknowledge the many people supporting the continuation of AJEL. First, thank you to all of the authors for submitting manuscripts. I encourage you to continue presenting your work for consideration. In addition, an enormous thanks to the manuscript reviewers. Many reviewers took on the task to evaluate several manuscripts and provide insightful feedback to the authors. Furthermore, thank you to the AAPEL Executive Board and AAPEL Advisory Board. I look forward to gaining momentum as AJEL and AAPEL provide continued opportunity for researchers to share their work and provide another avenue to bridge theory to practice. Finally, to Jim Berry, Ted Creighton, and Brad Bizzell with NCPEA Publications, AJEL would literally not be possible without your direction, support, and publication platform. To the readers, I hope the content will provide you with a deeper awareness of the many features of Instructional Leadership, Teacher Leadership, and best practices within the field of education through AAPEL's continuous dedication to offer insightful and reflective research. Enjoy!

# The Alabama Journal of Educational Leadership

Volume 2, September 2015

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# Our Children, Our Schools: Seeking Solutions for Improving the Climate in Urban Public Schools

Ronald A. Grace and Sonja Y. Harrington  
*Alabama State University*

*Using a quantitative study the researchers examined perceptions regarding school climate of parents with children who attend urban schools, based on several dimensions: quality of the instructional program, support for learning, school climate/environment for learning, parent/school relationships, and resource management. Of the 150 administered surveys by the National Study of School Evaluation NSSE (2004) Parent Opinion Inventory, 116 or 77.3% were returned. Descriptive statistics were used to report findings. Results showed high levels of agreement with parents on most dimensions; however, the lowest level was resource management. In conclusion, although the dimensions regarding school climate were perceived as favorable, student achievement data and conditions that typically characterize urban schools indicate continuous improvements are needed. Recommendations for such improvements include providing additional funding and educational opportunities for children attending urban schools.*

*Keywords:* school climate, urban schools, parental involvement, support for learning, resource management

## **Introduction**

School climate is among the most frequently mentioned concepts relevant to student achievement and has been identified an essential component in the successful implementation of school reform (Bulach & Malone, 1994; Dellar, 1998). Research drawn from a white paper published in 2014 by the Center for Social and Emotional Education, the Education Commission of the States, and the National Center for Learning and Citizenship, indicates the most fundamental dimension of school climate relates to the connection between parents, students and their school. Consequently, the researchers designed this study to examine perceptions regarding school climate of parents with children who attend urban schools, based on the following dimensions: the quality of the instructional program (Herman, Osmundson, Dai, Ringstaff, & Timms, 2011; Popham, 2005; Varias, 2005), support for learning (Cohen, Cardillio, & Pickeral, 2011), school climate/environment for learning (Center for Social and Emotional Education (CSEE), 2010), parent/school relationships (Jeynes, 2005), and resource management (Miles & Darling-Hammond, 1997; 1998). The aforementioned dimensions of school climate were derived from the National Study of School Evaluation's (NSSE) (2004) Parent Opinion Inventory, which serves as the theoretical framework of this study.

### **School Climate / Environment for Learning**

Relative to the school climate or environment for learning, it is necessary to establish the context or basis of this study as it relates to the terms "urban schools and urban school districts." Although, research that defines, characterizes, and highlights differences between urban schools and their suburban counterparts is abundant and longstanding. For the purpose of this study, the terms refer to schools or school districts which serve city populations that exemplify concentrated levels of poverty, are set in high crime areas, and often have deficient school success among students at all grade levels. Moreover, Lippman, Burns, and McArthur (1996) suggest these factors are strongly linked to differences between urban and suburban schools. Beyond these general characterizations, there are differences in urban school settings. Urban school districts are stratified or frequently consist of several types of schools, such as private, magnet--considered to be elite public schools, and traditional public or neighborhood schools, which are further divided into categories such as failing or passing and low or high quality (Lipman, 1998). Despite efforts by education policy makers to improve the educational performance of low-income students through mixed income strategies, the problems persist (Lipman, 2008). Therefore, it is of great importance for educators to establish and maintain healthy school climates in urban settings.

A viable, positive school climate promotes youth development and learning necessary for a productive and satisfying life in a democratic society (Center for Social and Emotional Education (CSEE), 2010). It is especially important for the climate in urban schools to be based on trust, safety, fairness, respect, a welcoming environment, and high expectations due to the challenging family and community circumstances inner-city youth face. Parents' positive perceptions of the school's climate positively correlate with their increased involvement and student achievement. In a special report on urban

school climate, Perkins-Gough (2008) stated parental involvement is important because it can serve to create greater student achievement through cultivating a climate of respect, trust, and an ethos or spirit of caring. Also, parent's feelings about their child's school, whether positive or negative, influence how deeply they get involved in school activities—and research indicates that the right kinds of parent involvement can boost student achievement. In this light, it is not only important to understand how parents perceive the school climate, but also to understand other parent/school relational factors.

### **Parent/School Relationships**

Relative to the NSSE Parent Opinion Inventory dimension concerning parent school relations, research suggests, over time, that variables associated with the family frequently have a greater impact on educational outcomes than those associated with schools (Barth, 2011; Coleman, 1966). For example, Bandura (1986) found that parent efficacy or belief that he or she has the ability to positively influence student outcomes is directly related to involvement. However, in order to be effective, involvement must extend beyond mere parent participation in school related activities. Only those actions which support student learning at home are likely to positively impact academic outcomes. Furthermore, there is little dispute among researchers that certain types of parental involvement are needed in urban schools to facilitate greater student achievement and that parent perceptions of the school influence such involvement. More specifically, activities that involve help with homework and educational activities, volunteering in the classroom, conference participation, and frequent communication with teachers are associated with student success in urban schools (Hoover-Dempsey, Bassler, & Brisse 1992). Nevertheless, relevant research supports the premise that parent perceptions strongly impact overall involvement.

How parents perceive schools greatly influences how involved they become in children's education (Perkins-Gough, 2008). As suggested earlier, parental involvement or participation in the educational experiences and processes of their children, is increasingly identified as a primary means of increasing academic achievement in urban schools and has been found to strongly influence minority children's academic achievement. For example, parental expectations, attendance and participation in school functions, communication with teachers, and help with homework are effective in student academic achievement (Jeynes, 2005, 2007).

Parent perceptions of urban schools may also have a negative impact on the type of involvement they render. Many urban schools are located in inner-cities and have majority, African-American and Latino enrollments. Social class and race can greatly impact academic achievement in such settings, because associated factors may negatively influence parents' orientation (perceptions) toward education and their involvement. It is noteworthy that though poverty is often associated with lack of income, it frequently results in humiliation, perceived lack of power, and feelings of exclusion, factors which may directly impact parent's efficacy and orientation (Amatea, E., & West-Olatunji, C., 2007). More precisely, educational orientation refers to what parents believe to be their role in education and how such beliefs impact their parental involvement strategies (Hoover-Dempsey & Sandler, 1995).

## **Quality of the Instructional Program (Relative to Teachers)**

The quality of the instructional program depends heavily on the quality of teachers the school is able to attract and retain. Varias (2005) suggested that recruiting and retaining highly qualified teachers in urban schools, characterized as being “hard-to-staff,” is challenging. Creating safe school environments, building better relationships with the community, and raising teacher expectations are effective methods of addressing teacher retentions (Varias, 2005).

Though urban schools are often associated with problems, such as low achievement and apathy among students, parents and teachers, and high teacher turnover, educators can employ effective solutions through carefully investigating the causes and taking specific actions. For example, the instructional program can be improved through attracting and retaining high quality teachers. Teacher retention might be improved through understanding what motivates teachers to leave and then taking actions to curtail those motivators. Moreover, safety, school-community relations, and teacher expectations are factors associated with instructional program quality because of how they impact teacher retention (Varias, 2005).

## **Support for Learning**

To be supported is for others to appreciate areas that pose challenges for us. There is little doubt amongst researchers concerning the need for teachers to engage in task oriented behaviors, but research also supports the need for relationship oriented behaviors as well. In an article highlighting innovative instructional strategies, Weselby (2014) suggested that task oriented behaviors that support student learning include embracing various instructional strategies and delivering lessons at varying levels of difficulty. Activities such as grouping students by shared interest, achievement, and ability for the assignment are proven to facilitate effective instructional differentiation. Relational behaviors that support student learning include personal interactions, soliciting individual student engagement and their input. For example, asking the students questions about what teachers might do to better support them can have a profound positive impact on students. This is supported by Lawrence-Lightfoot’s (2000) finding that respect is authentic; it cannot be imitated, but embodied. When respect is embodied it leads to feelings of student safety, support and engagement and which can be effective in improving school climate. Furthermore, the show of respect is contagious and leads to sustainability; when people are respected they are apt to show respect or appreciation to others; they tend to pay it forward or continue the behavior (Cohen, Cardillio, & Pickeral, 2011).

When teachers share practice, engage in high levels of collaboration and develop warm relationships, it results in faculty effectiveness, the promotion of professional growth, and camaraderie (Hord, 1997; Dufour, 2004). Teachers desire to be intimately involved with professional learning communities as ongoing learners (Marcinek, 2015). In this light, schools may inadvertently contribute to teachers’ perception of disrespect, by not supporting this need. On the other hand, when professional learning communities are structured in a manner that allows teachers to feel comfortable sharing shortcomings with colleagues in a non-threatening, non-judgmental atmosphere, it can add significantly

to their feelings of support. (Cohen, et al., 2011). Professional learning is essential to improving educational practice and can be the guiding principal in life-long learning and the model students emulate in becoming life-long learners (Marcinek, 2015).

### **Resource management**

Determining how school expenditures relate to student achievement has been difficult to measure for researchers. In response, researchers have applied the term “educational production function” to exhibit how school resources relate to school outcomes or more specifically, “to describe the relation between school inputs and student outcomes” (Greenwald, Hedges, & Laine, 1996, pg. 362). In this light, education can be viewed as a production process that utilizes limited resources to produce desired educational outcomes (Jagero, 2013). Moreover, research on schools demonstrates that there are various ways to manage resources to improve student achievement. For example, when resources are allocated in ways that create more instruction-free time for teachers, specialized programs for small subsets of students, and inflexible work hours for teachers, it increases teacher collaboration, enhances instructional focus on specific student deficits, and allows more common planning time for specific groups of teachers ((Miles & Darling-Hammond, 1997; 1998).

This study addressed the research question: *Regarding climate, what are the perceptions of parents with children who attend urban schools, based on the quality of the instructional program, support for learning, school climate/environment for learning, parent/school relationships, and resource management?*

### **Methodology**

Quantitative methods were utilized in addressing the research question framing the study. The descriptive research approach was employed for the purpose of determining the current status of parent perceptions concerning the climate of their child's school, located in an urban setting.

### **Participants**

One hundred fifty surveys were administered to parents of students attending an urban school located in the United States southeast region. The school had a free and reduced lunch rate of over 98%, which is an indicator of the overall social economic status of parents participating in the survey. Of the 150 surveys administered to parents, 116 were returned, yielding a 77% return rate. The high return may be due to the support of administrators and teachers to offer incentives to students who returned completed surveys.

### **Instrumentation**

The National Study of School Evaluation (NSSE) (2004) granted permission to utilize the organization's Parent Opinion Inventory to measure parent perceptions regarding the climate of schools. The Parent Opinion Inventory consists of fifty Likert-type items

exploring five major dimensions: quality of the instructional program, support for learning, school/environment for learning, parent/school relationships, and resource management. Parents were expected to provide their level of agreement involving their perceptions of the climate in their child's school based on six survey responses: Strongly Agree (SA), Agree (A), Neutral (N), Disagree (D), Strongly Disagree (SD), Doesn't Apply/Don't Know (D/A). This study was designed specifically to ascertain perspectives regarding school climate of parents whose children attend an urban school setting.

### **Data Collection**

Permission was granted by the district superintendent to conduct the study. Parents of students attending public schools in an urban location were randomly selected through a systematic sampling technique. In other words, every *n*th parent in the population was chosen. Systematic sampling is a slight variation from random sampling and has been used by school administrators to study parent satisfaction (Creswell, 2008). A listing of all students enrolled in the school was used to determine the population data. Systematic sampling was used by randomly assigning each student a number; the students whose names corresponding to the first 150 odd numbers were chosen. Students whose parents completed and returned the surveys were offered incentives such as extra reading time in the library.

### **Data Analysis**

Descriptive statistics were used to report the findings from the data. To address the research question, frequencies and percentages were calculated to report parent perceptions of urban schools regarding climate, based upon the five constructs of the study: quality of the instructional program, support for learning, school/environment for learning, parent/school relationships, and resource management. Frequencies and percentages were used as means of adding clarity to the perception results.

### **Findings**

Based on the conclusions related to the research question, an overwhelming majority of parents agreed the climate in their child's school was positive on all five dimensions. The quality of the instructional program, support for student learning, the environment for learning, parent/school relationships, and resource management were favorably perceived.

More specifically, the overall quality of the instructional program the school offered in the school was considered high among parents ( $n=106$ , 91.3%). Reading ( $n=111$ , 95.7%), mathematics ( $n=111$ , 95.7%), and science ( $n=111$ , 95.7%), was perceived at a slightly higher level of agreement than in social studies ( $n=109$ , 94.0%). It is noteworthy that considerable emphasis was placed on reading, writing, mathematics, and science from the state and local boards of education. (See Table 1 in Appendix)

In the area of support for student learning, evaluation and grading ( $n=111$ , 95.7%), and reporting of student work ( $n=112$ , 96.5%) was perceived as being slightly more agreeable than the individual help the school offers students outside of the

classroom ( $n= 101$ , 86.9%). This may be due to the recent and perpetual emphasis placed on educational accountability at the federal, state, and local levels. (See Table 2 in Appendix)

On the dimension of environment for learning, respondents agreed that all students at the school are treated with respect regardless of race, religion, or gender and school rules are applied equally ( $n= 111$ , 95.7%). However, there is a less favorable parent perception regarding adequate security measures in place ( $n= 104$ , 89.5%). The school was perceived as having a minor problem with bullies, even though it fostered an overall safe environment in an urban area known for criminal activity. (See Table 3 in Appendix)

Pertaining to parent/school relationships it was strongly agreed that parents felt welcomed when they came into the school ( $n= 111$ , 95.7%), that school rules were clearly communicated and that the school provided sufficient opportunities for parent involvement. Compared to other responses regarding parent/school relationships, a high level disagreement and neutrality was exhibited regarding parents' opinions when important decisions were made ( $n= 103$ , 88.7%). (See Table 4 in Appendix)

Of the five dimensions studied, resource management received the highest level of disagreement among parents regarding their perceptions of the climate within their child's school. The item regarding the quality of the school influencing parents' decisions to live in the community received the lowest rating of resource management ( $n= 98$ , 84.3%). This may not be as reflective of the school as it is of the community. A significant number of the student's parents receive public financial assistance relative to housing in the area. Adequate space for extracurricular activities was also ranked lowly among parent perceptions. The school and community have concentrated poverty. The community is also frequently associated with crime. (See Table 5 in Appendix)

## **Discussion, Conclusions, and Recommendations**

In summary, regarding Conant's (1961) prophetic warning, echoed more recently by Ravitch (1998) and a host of others, describing how inadequacies of urban education such as insufficient funding and outdated facilities, leads to low academic achievement and ultimately negative perceptions of school culture and climate, one would readily suspect that the school would have a negative climate. Contrarily, despite the inadequate resources and deficient conditions which existed within the urban school under study, it was concluded an overwhelming majority of parents agreed the climate in their child's was positive on the studied dimensions: the quality of the instructional program, support for student learning, the environment for learning, parent school relationships, and resource management. Although the results were favorable, an analysis of the research indicates that when schools engage in continuous improvement efforts it results in increased student achievement. Recommendations, in light of continuous improvement, include providing additional funding resources and learning opportunities to children in urban settings for optimal educational attainment.

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## Appendix

Table 1  
*Descriptive Statistics for Item Responses of Parents Regarding Quality of Instructional Program (N=116)*

Item	SA		A		N		D		SD		D/A	
	f	%	f	%	f	%	f	%	f	%	f	%
1. The education offered to students at our school is of high quality.	33	28.4	73	62.9	7	6.0	1	0.9	1	0.9	1	0.9
2. Our school is doing a good job teaching language arts (reading, writing, speaking, listening).	26	22.4	85	73.3	3	2.6	1	0.9	0	0.0	1	0.9
3. Our school is doing a good job teaching mathematics.	24	20.7	87	75.0	3	2.6	1	0.9	0	0.0	1	0.9
4. Our school is doing a good job teaching science.	17	14.7	94	81.0	2	1.7	2	1.7	0	0.0	1	0.9
5. Our school is doing a good job teaching social studies.	19	16.4	90	77.6	5	4.3	1	0.9	0	0.0	1	0.9
6. Our school is doing a good job teaching fine arts (music, visual arts, dance, and drama).	17	14.7	80	69.0	2	1.7	9	7.8	1	0.9	7	6.0
7. Our school is doing a good job teaching physical education.	23	19.8	87	75.0	3	2.6	2	1.7	0	0.0	1	0.9
8. Our school is doing a good job teaching health education.	14	12.4	84	72.6	5	4.4	5	4.3	1	0.9	7	6.2
9. Our school is doing a good job teaching driver's education.	6	5.3	63	54.0	3	2.7	8	7.1	2	1.8	3	29.2
10. Our school is doing a good job teaching foreign languages.	8	7.0	66	57.4	5	4.3	7	6.1	1	0.9	2	25.2
11. Our school is doing a good job teaching career/vocational courses.	15	12.5	92	79.5	4	3.6	2	1.8	0	0.0	3	2.7
12. Students see a relationship between what they are studying and their everyday lives.	21	18.1	90	77.6	2	1.7	1	0.9	0	0.0	2	1.7
13. Teachers use a variety of teaching strategies and learning activities to help students learn.	21	18.1	90	77.6	2	1.7	1	0.9	0	0.0	2	1.7
14. Teachers challenge my	29	25.0	83	71.0	2	1.7	1	0.9	0	0.0	1	0.9

student to do his/her best work.	0	6										
15. Teachers provide a reasonable and appropriate amount of homework to help students succeed in their studies.	22	19.	84	72.	6	5.2	3	2.6	1	0.9	0	0.0
	1		2									
16. Teachers hold high expectations for student learning.	22	19.	88	75.	2	1.7	3	2.6	1	0.9	0	0.0
	1		7									

Table 2  
*Descriptive Statistics for Item Responses of Parents Regarding Support for Student Learning (N=116)*

Item	SA		A		N		D		SD		D/A	
	f	%	f	%	f	%	f	%	f	%	f	%
17. Teachers give students extra help in class when needed.	2	20.	81	69.	7	6.0	2	1.7	1	0.9	1	0.9
	4	7	8									
18. Teachers are willing to give students individual help outside of class time.	1	16.	82	70.	1	9.6	2	1.7	1	0.9	1	0.9
	9	5	4	1								
19. Our school offers learning opportunities that support the full range of students' abilities.	1	14.	91	78.	6	5.2	1	0.9	0	0.0	1	0.9
	7	7	4									
20. Our school recognizes the achievements of students for all types of accomplishments.	1	16.	89	76.	5	4.3	2	1.7	0	0.0	1	0.9
	9	5	5									
21. The grading and evaluation of my child's school work is fair.	1	14.	94	80.	4	3.5	0	0.0	0	0.0	1	0.9
	7	8	9									
22. Reports on my child's progress are clear and easy to understand.	2	17.	92	79.	1	0.9	1	0.9	0	0.0	2	1.7
	0	2	3									
23. In our school, students have access to a variety of resources.	1	13.	82	70.	7	6.0	2	1.7	0	0.0	9	7.8
	6	8	7									
24. Effective procedures are in place to support my communication with teachers.	1	11.	92	79.	6	5.2	2	1.7	0	0.0	3	2.6
	3	2	3									
25. In our school, students have an access a variety of resources to help them succeed in their learning, such as technology, media centers, and libraries.	2	17.	87	74.	5	4.3	1	0.9	0	0.0	3	2.6
	0	4	8									
26. Our school facilities are adequate to support student's learning needs.	1	12.	94	80.	5	4.3	2	1.7	0	0.0	1	0.9
	4	2	9									
27. Our school provides	1	15.	91	78.	5	4.3	1	0.9	0	0.0	1	0.9

textbooks and supplies that are current and in good condition.	8	7	3									
28. Up-to-date computers and other technologies are used in our school to help students learn.	2	19.	85	73.	5	4.3	1	0.9	2	1.7	1	0.9
	2	1	0									

Table 3

*Descriptive Statistics for Item Responses of Parents Regarding School Climate/Environment for Learning (N=116)*

Item	SA		A		N		D		SD		D/A	
	f	%	f	%	f	%	f	%	f	%	f	%
29. Teachers at the school treat my child fairly.	2	17.	87	75.	5	4.4	3	2.7	0	0.0	0	0.0
	1	7	2									
30. Class sizes at our school are appropriate for effective learning.	1	15.	90	77.	4	3.5	4	3.5	0	0.0	0	0.0
	8	8	2									
31. All students and staff at our school are treated with respect, regardless of race, religion, or gender.	2	20.	88	75.	3	2.6	2	1.8	0	0.0	0	0.0
	3	2	4									
32. Adequate security measures are in place in our school.	1	15.	86	73.	6	5.3	4	3.5	0	0.0	2	1.8
	8	8	7									
33. Cheating is strongly discouraged at our school.	2	20.	90	77.	2	1.8	1	0.9	0	0.0	0	0.0
	3	2	2									
34. School rules apply equally to all students.	2	21.	86	74.	4	3.6	1	0.9	0	0.0	0	0.0
	5	4	1									
35. Substance abuse (e.g. drugs/alcohol) is not a problem at our school.	3	26.	80	68.	4	3.6	1	0.9	0	0.0	0	0.0
	1	8	8									
36. Our school provides a safe and orderly environment for learning.	2	17.	89	77.	3	2.7	3	2.7	0	0.0	0	0.0
	1	7	0									
37. Safety measures are in place to protect children traveling to and from school.	2	17.	89	77.	5	4.4	1	0.9	0	0.0	0	0.0
	1	7	0									
38. There are no problems with bullies at our school.	1	13.	83	71.	1	9.8	4	3.6	0	0.0	2	1.8
	6	4	4	1								
39. For the most part, I am satisfied with our school.	2	18.	87	75.	4	3.5	2	1.8	0	0.0	1	0.9
	2	6	2									

Table 4

*Descriptive Statistics for Item Responses of Parents Regarding Parent/ School Relationships (N=116)*

Item	SA		A		N		D		SD		D/A	
	f	%	f	%	f	%	f	%	f	%	f	%
40. Parent opinions are	2	17.	83	71.	7	6.1	4	3.5	0	0.0	2	1.7

considered when important school decisions are made.	0	4		3									
41. I am satisfied with the quality of our school's student activities.	2	17.	87	74.	2	1.7	4	3.5	2	1.7	1	0.9	
	0	4		8									
42. School rules are clearly communicated to parents.	2	23.	83	71.	3	2.6	2	1.8	0	0.0	0	0.0	
	8	7		9									
43. Our school provides sufficient opportunities for parent involvement.	2	21.	82	70.	6	5.2	3	2.6	0	0.0	0	0.0	
	5	7		4									
44. Our school uses technology to provide parents with important information about our school.	2	19.	80	68.	7	6.1	5	4.3	0	0.0	2	1.7	
	2	1		7									
45. Parents feel welcome at our school.	2	25.	82	70.	2	1.7	3	2.6	0	0.0	0	0.0	
	9	2		4									

Table 5  
*Descriptive Statistics for Item Responses of Parents Regarding Resource Management (N=116)*

Item	SA		A		N		D		SD		D/A		
	f	%	f	%	f	%	f	%	f	%	f	%	
46. Our school makes effective use of financial resources available.	1	13.	84	72.	9	7.8	2	1.7	1	0.9	5	4.3	
	5	0		2									
47. The quality of the school influenced my decision to live in this community.	1	13.	83	71.	1	8.8	2	1.8	2	1.8	4	3.5	
	5	2		1	0								
48. Our school and grounds are clean and well maintained.	2	18.	88	75.	2	1.8	4	3.5	1	0.9	0	0.0	
	1	4		4									
49. Adequate time, space, and facilities are provided for student activities (i.e., extracurricular, sports).	1	11.	89	76.	8	7.0	3	2.6	2	1.7	1	0.9	
	3	3		5									
50. Our school has a positive impact on the community's property values.	1	14.	85	73.	1	8.7	2	1.7	1	0.9	1	0.9	
	7	8		0	0								

# Literacy Coaching: Middle School Academic Achievement and Teacher Perceptions Regarding Content Area Literacy Strategy Instruction

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*This study examined differences in perceptions of content area teachers receiving literacy coaching and teachers receiving no literacy coaching regarding implementation of literacy instruction. It also examined student achievement on standardized tests relative to literacy coaching. A survey measured teachers' perceptions regarding their implementation of content area literacy strategy instruction. The null hypotheses were tested using an independent t-test and a factorial ANOVA. Results of the t-test indicated no statistically significant difference in perceptions of Title I middle school teachers regarding implementation of content area literacy strategy instruction. The factorial ANOVA indicated a statistically significant difference in students' test scores, but minimal to no effect size.*

*Key Words:* content area teachers, literacy coaching, literacy instruction, content area literacy, literacy strategy

## Introduction

Secondary teachers often find themselves coddling students during instruction because of students' inability to read and comprehend grade-level material (Gibbs, 2009). According to the U.S. Department of Education, reading is a primary indicator of academic success across content areas and the "global information economy requires today's American youth to have far more advanced literacy skills than those required by any previous generation" (Kamil, Borman, Dole, Kral, Salinger, & Torgesen, 2008, p. 1). By the time students reach middle school, many are skillful in the mechanics of reading, but lack the ability to strategically read and interpret meaning from text (Vacca, 2002). Students have a limited view of writing and seldom use writing to demonstrate understanding of information gleaned from textbooks and classroom discussions. In-depth learning across content areas requires advanced literacy skills, and the use of literacy and language strategies to comprehend subject-area concepts (Snow & Moje, 2010).

Emphasis is placed upon reading instruction in kindergarten through third grade. However, students who appear to be on target academically begin to struggle when they encounter complex texts in upper grades (Salinger, 2003). The traditional focus upon skill building in early grades is not sufficient for helping students master difficult vocabulary, composition, and concepts they encounter as they advance in school (Gewertz, 2009; Biancarosa, 2012). According to Biancarosa (2012), in addition to more complex vocabulary, composition, and concepts, adolescents must learn to glean information from tables, graphs, pictures, and figures presented in far more complex ways than they are in books students encounter in earlier grades.

Beginning in fourth grade, effective reading instruction makes a shift from teaching students to learn to read and focuses upon helping students use reading skills to learn curriculum content (Burns & Gibbons, 2008). This shift focuses upon students' ability to comprehend material and lasts throughout high school where the focus is upon helping students apply comprehension strategies that help them master information across content areas. Many students struggle with this shift in focus, finding it difficult to manipulate skills and strategies necessary for independent learning (Salinger, 2003). According to Robb (2000), struggles adolescent students face may be a result of the lack of support they receive as they move from fluently decoding textbooks to strategically reading textbooks.

Well-skilled teachers who incorporate content literacy practices into their instruction improve students' reading capacity, vocabulary, and content knowledge (Brozo, 2010). However, secondary teachers need help understanding how to manage the dual task of teaching content knowledge and increasing student literacy (International Reading Association, 2006). Even content teachers who understand that building literacy capacity in students is their responsibility have limited notions of how to put their beliefs into practice (Sturtevant, 2003). Teachers must receive consistent guidance and assistance as they learn to manage the dual role of delivering content and teaching literacy to secondary students.

Nationally, school districts have begun implementing professional development models that incorporate the use of literacy coaches. The belief is coaching can improve teachers' instructional practices, leading to increased academic achievement among students (Elmore & Rothman, 2000). Coaches help teachers combat challenges



associated with adhering to curriculum requirements while teaching literacy skills (Shanklin, 2007).

According to Toll (2007), literacy coaching makes it more likely that teachers will make better decisions regarding student learning. Coaches challenge teachers to think differently about student learning, encourage teachers to reflect upon instructional practices, and provide support with developing and implementing interventions for struggling learners (Walker, 2008). On-going support of literacy specialists is instrumental in helping teachers improve academic achievement of struggling readers (Vernon-Feagans, Kainz, Amendum, Ginsberg, Wood, & Bock, 2012). According to Walker (2008) literacy coaches ignite changes in practices, beliefs, and values about literacy instruction.

The impact literacy coaches have on improving reading achievement depends on the support coaches receive from principals and district administrators (Wren & Reed, 2005). Staff members meet the introduction of coaches into established school cultures with suspicion (Toll, 2004). Secondary literacy coaches struggle to validate themselves with teachers who do not believe reading and writing activities increase students' content knowledge (Blamey, Meyer & Walpole, 2008). Collaborative relationships between principals and coaches prevent derailment of coaches' work and help principals lead academic success of students (Wren & Reed, 2005).

## **Purpose**

The purpose of this study was to: 1) determine if there was a statistically significant difference in the perceptions of teachers receiving content area literacy strategy training and teachers receiving no content area literacy strategy training regarding their implementation of the strategies and 2) determine if a relationship exists between the academic achievement of middle school students and literacy coaching based upon student achievement on standardized tests.

## **Limitations**

The researcher recognized the following limitations in this study:

1. The researcher made no attempt to control for teacher fidelity regarding implementation of content literacy strategy instruction.
2. Other factors such as prior instruction and students' cognitive abilities were outside of the scope of this study.
3. The researcher made no attempt to control for the quality of professional development provided by literacy coaches.
4. The researcher made no attempt to control for teacher knowledge of content area strategy instruction prior to professional development by literacy coaches.
5. The researcher made no attempt to control for the frequency of coaching and the professional development provided by literacy coaches.

## **Significance of the Study**

This study may provide valuable information to school administrators when evaluating the need to staff Title I middle schools with literacy coaches. The study may also serve as a resource in creating school-wide literacy programs aimed at improving student reading achievement across content areas.

## **Methodology**

The researcher chose an independent t-test and a factorial Analysis of Variance (ANOVA) to test the null hypotheses. The level of significance was set at (.05) for both.

A total of 15 Title I middle schools from a southern state were identified as having literacy coaches. Five Title I middle schools with literacy coaches (Group 1) and four Title I middle schools without literacy coaches (Group 2) were randomly selected as the sample population for this study. Seventh grade content area teachers from the sample population were surveyed because those teachers were responsible for teaching the standards that are assessed on the EXPLORE Test taken by 8th grade students each fall. The EXPLORE test is developed by the ACT Board and measures students' aptitude in English, math, reading and science. It consists of four multiple-choice tests in each of the four subject areas. The assessment measures the knowledge and skills needed for success. Fifty teachers were surveyed.

Additionally, two schools from the sample of non-coached schools and two schools from the sample of coached schools were randomly selected to ascertain EXPLORE testing data. The additional random sample was selected to reduce the number of student test scores used in the study. EXPLORE test data was obtained from each of the four randomly selected schools. A total of 1,592 EXPLORE test scores were used in the study because EXPLORE provided student achievement data across content areas. The archival data included three consecutive years of test scores, 2011-2012, 2012-2013, and 2013-2014.

A 13-question, researcher-developed survey designed to measure the levels of teacher implementation of content area literacy strategy instruction and the quality of professional development provided by literacy coaches was used. Experts in the field of education established content validity and questions were developed from the review of literature (Radhakrishna, 2007). Experts reviewed items for readability, clarity, and comprehensiveness and agreed upon items included in the final instrument (Miller, 2012, p. 8). The next section will outline the results of the tested null hypotheses.

## **Results**

Null Hypothesis 1: (1) There will be no statistically significant difference in teachers' perceptions of the implementation of content area literacy strategy instruction between teachers in schools with a literacy coach and teachers in schools without a literacy coach.

The analysis revealed that Group 1 ( $M = 3.08$ ,  $SD = .45$ ) was not significantly different from Group 2 ( $M = 2.97$ ,  $SD = .28$ ),  $t(40) = .84$ ,  $p = .41$ . Levene's test of equality of variance indicated that the homogeneity of variance assumption was not

violated,  $F = 2.21$ ,  $p = .15$ . The researcher failed to reject the null hypothesis of no statistically significant difference in teachers' perceptions. Since the total number of participants was 42, but one group had 13 participants, interpret the results with caution. Creswell (2012) recommends a minimum of 15 participants in each group.

Analyses were carried out to compare average scores per question relative to whether or not the questions were answered by teachers from coached or non-coached schools. The analysis revealed the top three response items for teachers in coached schools were questions 5, 6, 7 and 11 with mean response scores of:  $M = 3.24$ ,  $M = 3.48$ ,  $M = 3.24$ , and  $M = 3.27$ , respectively. The top three response items for teachers in non-coached schools were questions 5, 6, 7, 11 and 13 with mean scores of:  $M = 3.54$ ,  $M = 3.54$ ,  $M = 3.15$ ,  $M = 3.15$ , and  $M = 3.08$ , respectively. In general, teachers from coached and non-coached schools had similar perceptions regarding their implementation of literacy strategy instruction across content areas. The highest and lowest mean scores by question relative to school type are presented in Tables 1 and 2.

Table 1  
*Highest Mean Scores by Question Relative to School Type*

Question	School Type	Mean	Question	School Type	Mean
Q6	Coached	3.48	Q6	Non-Coached	3.54
Q11	Coached	3.28	Q11	Non-Coached	3.15
Q5	Coached	3.24	Q5	Non-Coached	3.54
Q7	Coached	3.24	Q7	Non-Coached	3.15

Table 2  
*Lowest Mean Scores by Question relative to school Type*

Question	School Type	Mean	Question	School Type	Mean
Q9	Coached	3.07	Q9	Non-Coached	2.69
Q13	Coached	3.07	Q13	Non-Coached	3.08
Q10	Coached	2.83	Q10	Non-Coached	2.23
Q12	Coached	2.56	Q12	Non-Coached	2.62
Q8	Coached	2.93	Q8	Non-Coached	2.69

A factorial ANOVA was used to analyze null hypotheses two, three, and four. Levene's test of equality of variance indicated the homogeneity of variance assumption was not violated,  $F = .99$ ;  $p = .42$ . The results of each hypothesis are stated below.

Null Hypothesis 2: There will be no statistically significant difference in EXPLORE scores between Title I middle school students in coached schools and non-coached schools.

The results indicated a statistically significant difference between the composite test scores of students in schools staffed with literacy coaches and students in schools not staffed with literacy coaches,  $F(1,1586) = 10.89$ ;  $p = .001$ ,  $\eta^2 = .007$ . The EXPLORE scores for students in coached schools were significantly higher than the scores for students in non-coached schools. The use of  $\eta^2$  indicated a minimal to no effect size (Creswell, 2012). A descriptive analysis of the data showed the means and standard deviations of test scores by school type per year. The results are presented in Table 3.

Table 3  
*Means and Standard Deviations by School Type per Year*

School Type	Year of Test	Mean	Std. Deviation	N
Coached	2011	13.07	2.49	305
	2012	12.65	2.27	322
	2013	13.35	2.66	313
	Total	13.02	2.49	940
Non-Coached	2011	12.26	2.25	199
	2012	12.84	2.54	215
	2013	12.74	2.37	238
	Total	12.63	2.40	652

Null Hypothesis #3: There will be no statistically significant difference in overall EXPLORE test scores for year one, year two, and year three. The results indicated a statistically significant difference in scores between years,  $F(2,1586) = 3.51$ ;  $p = .03$ ,  $\eta^2 = .004$ . A Tukey's HSD post hoc test revealed that year three EXPLORE scores were significantly higher than EXPLORE scores in year two. See Table 4 for the summary. According to (Creswell, 2012) eta square indicated a minimal to no effect size.

Table 4  
*Tukey's HSD Summary for Hypothesis 3*

	Year 1	Year 2	Year 3
Year 1	-----	.09	.39
Year 2		-----	.30*
Year 3			-----

\*Indicates significance

Null Hypothesis #4: There will be no statistically significant interaction between EXPLORE scores for coached and non-coached schools and year tested. The results indicated a statistically significant interaction,  $F(2,1586) = 5.96$ ;  $p = .003$ ,  $\eta^2 = .007$ . EXPLORE scores rose significantly higher in year three for coached schools than they

did in non-coached schools. According to Creswell (2012) the use of  $\eta^2$  indicated a minimal to no effect size. See Figure 1 for the results.

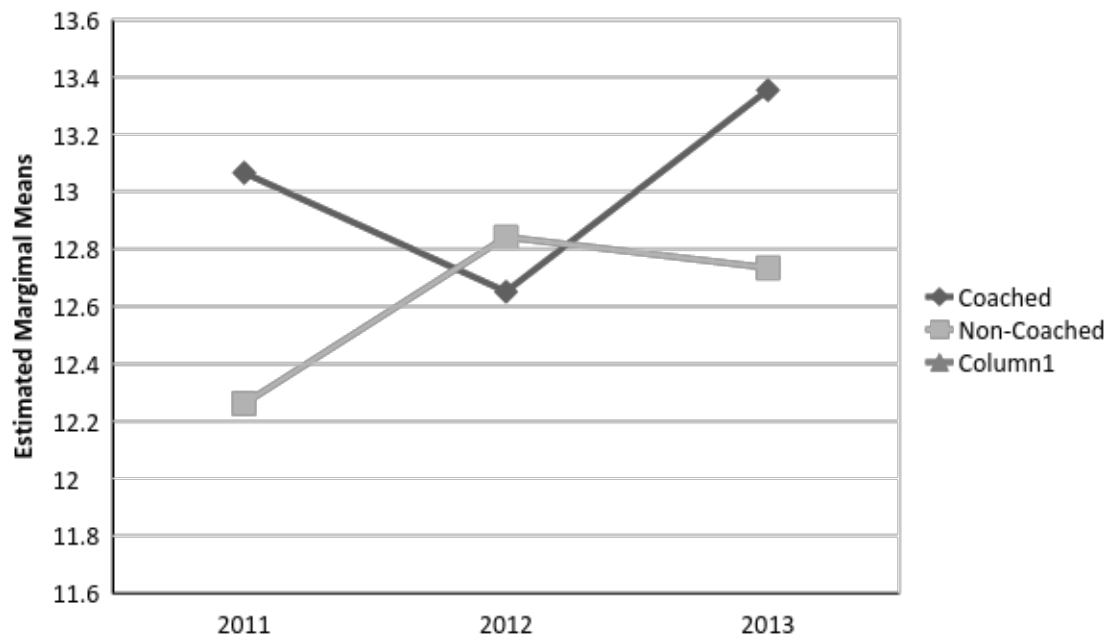


Figure 1. Estimated Marginal Means of EXPLORE Scores by Year and School Type

### Discussion

The findings of this study are inconclusive regarding the need to staff Title I middle schools with literacy coaches. EXPLORE test scores for students attending schools staffed with literacy coaches were significantly higher than scores of students in schools not staffed with literacy coaches. However, the effect size was minimal. Additionally, teachers in coached and non-coached schools shared the opinion that literacy coaches are needed in schools. Although teachers agreed that literacy coaches are needed in Title I middle schools, the findings of the study also indicated a need for more specialized training of coaches. Teacher respondents indicated professional development provided by coaches needed to be more effective. School systems need to provide advanced training for coaches so they can better meet the needs of the teachers they serve. Building principals and district administrators must provide clear and consistent support to literacy coaches to maximize their effectiveness (Steiner & Kowal, 2007).

Ancillary data gleaned from the demographic responses of teachers indicated that Math teachers had the lowest level of implementation for strategy instruction. Further study could focus upon the knowledge and implementation of Math teachers regarding content area literacy and the academic achievement of students in Math.

Teacher perception was strong regarding the belief that forms of professional development other than literacy coaching can enhance teachers' knowledge of literacy strategy instruction. Future research may identify additional sources of professional development and explore how they impact teacher implementation of literacy strategy instruction.

Qualitative methodologies (e.g., case study) could also be used to further explore the relationship between literacy coaching and teacher implementation of literacy strategy instruction. This methodology would examine the self-efficacy, expertise, and training of literacy coaches and evaluate the extent to which they provide professional development that teachers deem effective.

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## APPENDIX

### ***Teacher Survey: Literacy Coaching and Literacy Strategy Instruction***

The 13-item questionnaire is designed to determine if a difference exists in the levels of implementation for teachers who have received professional development from instructional/literacy coaches and those who have received other forms of professional development. Your participation in the survey is voluntary. All data collected will remain confidential. Completion and submission of the survey will indicate your willingness to participate in this study.

**Part I**

**Directions: Please read each question carefully. Circle one answer.**

1. I teach 7 <sup>th</sup> Grade:	a) Yes	b) No		
2. I have taught at this school: more	a) Less than 1 year	b) 1-3 years	c) 3-5 years	d) 5 years or more
3. My subject area is:	a) science	b) math	c) English/language arts	d) history
4. My school has employed a literacy coach:	a) 1-3 years	b) 3 or more years	c) not applicable	

**Part II**

**Directions: Circle the answer that best describes your opinion.**

5. I believe a literacy coach is needed at my school a. Strongly agree b. Agree c. Strongly disagree d. Disagree e. No opinion
6. I believe professional development other than literacy coaching can enhance teacher knowledge of content literacy strategies a. Strongly agree b. Agree c. Strongly disagree d. Disagree e. No opinion
7. I participate in weekly professional development focusing upon content area literacy strategy instruction a. Strongly agree b. Agree c. Strongly disagree d. Disagree e. No opinion
8. Classroom demonstrations modeling literacy strategy instruction are provided at my school a. Strongly Agree b. Agree c. Strongly Disagree d. Disagree e. No opinion
9. Professional development workshops at my school emphasize literacy strategy instruction a. Strongly agree b. Agree c. Strongly disagree d. Disagree e. No opinion
10. Classroom demonstrations modeling literacy strategy instruction are highly effective a. Strongly agree b. Agree c. Strongly disagree d. Disagree e. No opinion
11. I completely understand and use literacy strategies such as: text coding, close reading, visualizing, graphic organizers, think-pair-share or reciprocal teaching a. Strongly agree b. Agree c. Strongly disagree d. Disagree e. No opinion
12. I completely understand and use literacy strategies such as: below the line, save the last word for me, extract/react notes or magnet summaries a. Strongly agree b. Agree c. Strongly disagree d. Disagree e. No opinion
13. I implement literacy strategy instruction into my lessons daily a. Strongly agree b. Agree c. Strongly disagree d. Disagree e. No opinion

# Exploring 8<sup>th</sup> Grade Middle School Science Teachers' Use of Web 2.0 Tools

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*Educational research focuses on the way teachers and students interact and how teachers structure learning environments to promote interactions. Rural schools require more efficient use of limited human resources if they are not able to hire sufficient numbers of teachers who possess the knowledge and skills. The researcher used a phenomenological qualitative framework to explore how in-service science teachers engage students during instruction using emerging technology. Five (5) participants provided reflections about their practices used during classroom instruction. As expected, the teachers' technological usage varied with instructional delivery and changes with engaging students in learning beyond the school curriculum. The findings suggest rural in-service teachers need explicit opportunities to engage in work to help their students learn science concepts and the extent to which participants know their science content and design instruction that cultivate science identities.*

*Key words:* science instruction, constructivism, Web 2.0 tools, instructional delivery, student engagement

## Introduction

One of the primary goals of science education is to cultivate scientific habits of mind, develop scientific inquiry, and know how to reason in a scientific context within each learner (Layton, 1973). All students, regardless of family background, should benefit from instruction to meet college and career-ready criteria. Many teachers are joining online communities and subscribing to blogs and websites to improve their professional practice. However, limited resources in rural and low-income school districts, such as those in the Black Belt region of Alabama, may not provide opportunities for students to forgo traditional textbooks engaging with a larger learning environment. No longer are textbooks the only source of information; but, students carry their work on USB (Universal Serial Bus) flash drives that plug into any computer.

The researcher explored the perspectives of in-service teachers' development of a pedagogically web-based blended driven approach to teaching 8<sup>th</sup> grade middle school science students. Jennifer Beane (2004) argued students in middle school should be exposed to learning experiences that engage students in exploratory type community based experiences. Educational technology tools are available for science teachers during instruction but are still challenging for most teachers. Helping students make connections among science and technology and making use of current social and technological emerging tools can assist students in becoming scientifically literate through the integration of knowledge and skills (Enger & Yager, 2009). This study uses research questions to investigate the experiences of teachers integrating technology during instruction. It is evident of the need for providing professional development to integrate Web 2.0 to be an ongoing process where teachers require time to process steps.

Web 2.0 is a broad term which refers to usage of the internet and includes the tools to promote collaboration, user-generated content, and new knowledge and interaction between sites. It is important teachers develop a comprehensive use of technology through careful consideration of pedagogy and professional development (Hsu, 2010). As equipment and network infrastructure expands to increase usage of computers, there is an increase in demand for computer training since teachers are expected to improve Information and Communications Technology (ICT) integration into their lessons. Digital natives are nested with technology and use technological devices efficiently and effectively in their daily lives. Although teachers set learning goals and are role models, the use of social media by students have created a community where teachers learn more and more from their peers (Hsu, 2010).

Science concepts are central to science instruction, and successful teaching is dependent on students understanding these concepts (Enger & Yager, 2009). At present, school science contains too many exercises and too few problems. Deep understanding in science goes well beyond memorization of isolated facts and concepts; deep scientific understanding includes a coherent system of facts, concepts, scientific inquiry, and strong problem-solving ability. When student outcomes reveal ineffective teaching, teachers must consider alternative methods of instruction (Anderson & Matkins, 2011; Shulman, 1987). Emphasizing scientific inquiry and problem solving promotes deep understanding of science (Staver, 2007; Superfine, 2008) and Web 2.0 tools support user contribution to knowledge and content. Problem solving, then, becomes what learners do when they have little or no idea of what to do. In contrast, an exercise is a task that learners have an

immediate, excellent idea of how to complete, perhaps because their teacher gave advance directions on how to complete it (Thompson & Smith, 2005).

Middle schools students are nested with technology and they use technological devices efficiently and effectively in their daily lives. Web 2.0 tool integration allows greater pedagogical content knowledge through collaboration, active involvement to content, producing knowledge, and sharing ideas (Weinburg, 2003). Students can become more effective problem solvers through science teaching that emphasizes scientific problem solving and deemphasizes exercises (Staver, 2007). Effective problem solvers construct representations of the gap more correctly and precisely than do ineffective problem solvers. Effective problem solvers exhibit a more organized, relevant knowledge base than do ineffective problem solvers. Effective problem solvers spend more time on representing the gap and planning solutions to the problem than do ineffective problem solvers. Effective and ineffective problem solvers make similar numbers of errors, but effective problem solvers are better at checking strategies to identify and correct errors (Staver, 2007; Anderson & Matkins, 2011; Kazempour, 2014).

Focusing on technology integration during classroom instruction as the unit of analysis is far too easily over-simplified. It is not just about technology, as classrooms with only teachers and students can be extremely appropriate learning environments (Darling-Hammond, 1998). The debate about technology sits beneath the larger and more important discussions about methodologies and pedagogy. The under-tone arguably sits under useful discussions about how to encourage learning outcomes in education. Discussing technology integration is about how to encourage professional practice amongst teachers and administrators (Hsu, 2010).

All students, regardless of family background, should benefit from rigorous instruction to prepare them for after school (Alliance for Excellence in Education, 2009). Most schools do not teach all students at the same academic level (Darling-Hammond, 2007). However, instruction must provide the foundation that constructs practices relevant to the learners' environment but transform into higher level thinking. The nation's lowest-performing high schools produce 58% of all African American dropouts and 50 % of all Hispanic dropouts, compared to 22 % of all white dropouts (Alliance for Excellence in Education, 2009). Rural schools require more efficient use of limited human resources (Hickey & Harris, 2005).

Participants in this study responded to the following leading questions to prompt describing how they use technology to engage student learners.

1. How do you incorporate technology during classroom instruction?
2. What teaching strategies or activities do you use with technology?
3. How do you use multimedia during instruction?
4. Which Web 2.0 tools do you use during classroom instruction?
5. Which technology resource do you require students to use to complete class activities?

This phenomenological qualitative study was designed to investigate how in-service middle school teachers integrate emerging technologies into rural 8<sup>th</sup> grade middle school science classrooms. An opportunistic sampling technique was used when the participants were available to report their views (Schreiber & Asner-Self, 2011).

Among the challenges of implementing web-based blended learning in rural schools are high dropout rates, limited access to advanced coursework and technology, and difficulty in recruiting and retaining highly effective teachers (Darling-Hammond, 1998).

Focusing on teachers' attempt to resolve ambiguity and uncertainty provide us with a powerful lens that can explain how teachers generate connections between concepts by making sense of experiences and ideas (Kazempour, 2014). The participants are helping students make connections between science and technology. Educational technology tools are available for science teachers during instruction but are still challenging for most teachers. The researcher developed research questions to investigate the experiences integrating technology to develop and sustain effective instruction.

### **Conceptual Framework**

Many theories can be mapped to three broad educational approaches: behaviorism, socio-cultural, and constructivism. Jerome Bruner's (1996) constructivist theoretical framework emphasized that learning is an active process in which learners construct new ideas or concepts based upon their current/past knowledge. When modern pedagogical practices are based on socio-cultural approaches on learning, students are seen as active agents who share ideas, solve open-ended problems, use various information sources, and create new knowledge together. Teachers who want to implement such practices in their classrooms often face the demands of changing their traditional ways of designing instruction.

Learners must be given opportunities to reflect on their experiences for future learning. Facilitating student learning includes using written instructions to illustrate the steps to be used in the writing process, teaching students about formula writing, webbing stories, using a graphic organizer and using several new and innovative digital tools such as recording student voices, pictures, and music. Instead of writing a story on a piece of paper, the student output uses a web-based learning platform (i.e., PowerPoint presentation software, Prezi, Voicethread, and/or Voki). This allows students to organize, listen, and see their product as the process is taking form. The learning outcomes would increase in number and quality. Constructivist theory posits that knowledge is constructed from experience through reflection (Merrill, 1992). However, Creswell and Creswell (2013) noted that phenomenological qualitative studies involve the following:

- Looking at the problem through a theoretical lens;
- Inquiring into the meaning individuals give to the social construct;
- Collecting data in a natural setting in order to establish patterns or themes;  
and
- Discussing the voices of the participants to interpret what they see as the problem.

A growing effort to help science teachers develop their understanding of integrating web-based instruction and related teaching practices has been an ongoing challenge in science teacher education (Hsu, 2010). A great deal of research has indicated science teachers should be provided with opportunities to develop web-based instructional strategies to facilitate student use and understanding in the classroom

context (Slavin, 1989). Instruction must provide the foundation in which frameworks construct relevant practices within the learners' environment (Darling-Hammond, 1998). Slavin (1989) stated beliefs and experiences construct the organization of new knowledge. Classroom teachers require contextual factors to create strategic pedagogical practices (Slavin, 1989). Most teacher growth is derived from participating and being recognized as a competent and contributing member of the professional discourse. Thus, finding and keeping talented teachers in low-income areas is nearly impossible, particularly if they do not have familial connections (Alliance for Excellence in Education, 2009).

The most prevalent discussion in educational practices for the last 10 years has been on constructivism. As the name implies, constructivism is based on the premise that learners construct knowledge based on their own experiences and prior beliefs (Snider & Roehl, 2007). Dianovsky and Wink (2012) emphasized the importance of students reflecting upon current knowledge and understanding. They reported that students who reflect on their work develop a form of metacognition called self-regulation where learners understand and control the learning environment.

### **Methodology**

The researcher chose a phenomenological qualitative research design in which the empirical technique used in educational research aims at uncovering the individual ways of experiences, conceptualization, and perceptions of technology integration. The researcher looked at the explicit science and the technology teachers' perspectives on secondary school science instruction. The data collection instrument was a five-question open-ended questionnaire with respect to the ways teachers incorporate the use of technology.

### **Participants**

Participants of the study were identified through opportunistic sampling. An opportunistic sampling technique was used when the participants were available to report their views (Schreiber & Asner-Self, 2011). Participants consisted of four female science teachers and one male science teacher in secondary schools in Southeast Alabama. Teaching experience varied from 2-5 years and all have a certificate of teaching. Three participants (1, 2 and 3) were from a school district with a student population of 31,316 (school population 957) where 72.86% were eligible for free and reduced lunch (FRL) while the other two participants (4 and 5) were from a school district with a population of 3,742 (school population 289) where 90.26% were eligible for FRL during the 2013-2014 school year. The student population at the school for participants 1, 2, and 3 was roughly 87% African American, 10.7% Hispanic and 1.8% White. The student population at the school for participants 4 and 5 was 100% African American.

Participants responded to the following leading questions to prompt describing how they use technology to engage student learners.

1. How do you incorporate technology during classroom instruction?
2. What teaching strategies or activities do you use with technology?

3. How do you use multimedia during instruction?
4. Which Web 2.0 tools do you use during classroom instruction?
5. Which technology resource do you require students to use to complete class activities?

The participants in the phenomenological qualitative study were five (5) in-service 8<sup>th</sup> grade middle school science teachers who responded to a convenient sample. The research questions below were used as a guide to support the study while investigating the commonalities within technology integration during classroom instruction.

1. What perceptions do middle school science teachers have regarding using Web 2.0 tools to teach science?
2. To what extent do middle school science teachers' believe using Web 2.0 tools improve classroom instruction?
3. What technology-based instructional design do middle school science teachers use over traditional classroom strategies or instructional designs?

### **Results**

The data were collected from five practicing in-service middle school teachers who completed undergraduate coursework and had been teaching for 2 years but not more than five years. The instructional technologies are indicated by the participants (Table 1). The overall findings of the study revealed PowerPoint was the most widely used instructional technology. The second widely used instructional technology was SMART Technologies© and YouTube. Edmodo, Remind101, Dropbox, and Socrative were used but not by each participant.

Table 1  
*Instructional Technologies by Participants Based on Their Usage*

	Participant 1	Participant 2	Participant 3	Participant 4	Participant 5
PowerPoint	X	X	X	X	X
SMART Technologies	X	X	X	X	
Socrative			X		
Remind101		X	X		
Dropbox	X			X	
Edmodo		X	X		
YouTube	X	X		X	X

### **The Role of Integrating Technology during Instruction**

This section is organized around the three research questions that led to developing the leading question used to generate responses in the questionnaire data.

Question 1: What perceptions do middle school science teachers have regarding Web 2.0 tools to teach science?

Two participants indicated that using interactive science learning games, podcasts, and PowerPoints for lectures provided a manageable learning environment. Participants indicated several instructional strategies that were instrumental in improving student learning: "Talk and Turn," "Think. Pair. Share," "Table Talk," "Popcorn Reading," "T-notes," and "Quick Assessment". The participants indicated using short answers, scenarios, and a mixture of math and science activities prior to performance assessments reinforcing potential difficult areas.

Question 2: To what extent do middle school science teachers' believe using Web 2.0 tools improve classroom instruction?

Through follow-up conversations with the five participants, each stated that students perform better in school when technology is used during instruction. Videos were used by participants in the lessons for several reasons: providing visual and auditory learning, getting attention, and making connection with daily activities, and giving examples of everyday life. One participant stated that she did not prefer to use videos since they might make students lose their attention.

Question 3: What technology-based instructional design do middle school science teachers use over traditional classroom strategies or instructional designs?

Teachers should use various modes of presentation to accommodate different learning styles. In addition to instructional practices, attitudes toward science teaching were identified as a factor that greatly impacts instruction. Most participants explained that their learning in school was not hands-on but consisted of worksheets and lectures. Each participant noted that they would like more professional development giving them opportunities to integrate more technology during instruction and make science more hands-on than their own experiences. They expressed a concern to create more group work to offer each student pleasant memories of learning. Even though the participants' prior science experiences had been mainly traditional, teacher-centered, and focused on memorizing facts and terminology, they envisioned their classroom as engaging where students could create and learn from each other.

### **Discussion**

The researcher explored the areas of how teachers' technological usage varies with instructional delivery and challenges they face with engaging students in learning beyond the school curriculum. The findings suggest rural in-service teachers need explicit opportunities to engage in work to help their students learn science concepts and the extent to which participants know their science content and design instruction that cultivate science identities. Not only can school leaders address the use of technology to enhance instruction but also provide resources and opportunities through professional development. Incorporating instructional strategies, using higher order questioning, and



working to enhance student engagement can extend student's thinking and summarizing abilities. Relying on pedagogical expertise and classroom experience are not enough to fulfill the dynamic role in the classroom.

Effective instruction begins with focused learning and a teaching agenda building the collective function of school staff to fulfill the purpose of the local school or district. Thus, it is critically important to identify ways in which schools, regardless of socioeconomic backgrounds, raise the academic performance and meet the challenges for college and career ready students. Instruction must provide the foundation that construct practices relevant to the learners' environment but transform into higher level thinking. Science teachers must remember that their own intrinsic motivation to learn science is likely not shared by many of their students, whose motivation is more likely activated instrumentally, by connecting science to things that are already familiar and important to them.

Current evidence indicates different learning outcomes can be effectively supported and enhanced with different techniques, approaches and tools; but there is very little incentive to incorporate it for the improvement of the broad majority of learning environments created in schools and universities (Kazempour, 2014). Learning is also a social and cultural process. Individual learners' interactions with their peers are important to each learner's active construction process and the group process. The construction of deep scientific knowledge results from actively practicing science in structured learning environments. Learning environments should support students' active construction of knowledge (Dianovsky & Wink, 2012; Kazempour, 2014). Effective science teachers use a variety of techniques to connect content with student interests including the following:

- Connect science concepts and instruction explicitly to learners' personal experiences.
- Use specific examples, analogies, and metaphors.
- Plan lessons to emphasize themes of science, technology, and society.
- Have students organize data into diagrams, tables and graphs.
- Have students use data in tables and graphs (bar, line, and histogram) to identify patterns and make predictions.

To prepare students to live and work in tomorrow's world, science teachers must make room for scientific inquiry by decreasing their emphasis on teaching science as a sequence of lectures and reading assignments on the body of scientific knowledge. In addition, teachers must greatly decrease their coverage of non-core scientific knowledge. While doing so, they must retain the core knowledge in the scientific disciplines and increase their emphasis on scientific inquiry as a core part of science content and as a method of instruction.

### **Implications and Conclusions**

Integrating technology to engage students emerges as the primary factor that exists in effective schools regardless of socioeconomic backgrounds. Thus, it is critically important to identify ways in which some schools raise academic performance and meet the challenges implementing college and career-ready standards. Integrating technology

within schools only begins with sustained student-centered instruction, establishing clear objectives and expectations, and providing immediate feedback, particularly in rural schools due to limited available human resources. Areas facing further reductions in resources demand improved results on high-stakes test. Incorporating Marzano's (DuFour & Marzano, 2011) instructional strategies, higher order questioning, and student engagement to extend thinking and summarizing techniques so that they provide many opportunities to scaffold student instruction and encourage students to utilize higher cognitive processing skills. Providing students with comprehensive skills enhances the learning experience for both teachers and students. School leaders analyze data to determine what is working and not working to improve the instructional framework in order to develop effective classrooms throughout the building.

For future research in this area, it is suggested more classroom observation sessions should be conducted in order to fairly capture teachers' classroom practices, especially for the purpose of evaluating longitudinal data. More demographic and background data could also be collected to explore the factors influencing teachers' new technological skills and practices on students' science learning motivation and science learning outcomes. In addition, another area of research would include the student learning outcome findings from teachers integrating technology compared to traditional methods of instruction.

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# Women's Journey to the School Superintendency

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*Eighty percent of public school teachers are females, but only 24% of school superintendents are females. This upward trend from a low of 1.3% in the early 1970s has not mirrored the increase of females in executive level positions in other professions. A mixed-methods design identified the barriers that contribute to the under-representation and lack of growth of female superintendents. Participants in the study included active and retired female superintendents from a single Southern state. The quantitative phase consisted of a 29-item Likert-scale survey with 26 respondents. Qualitative follow-up included a three-part interview series design with four successful current and former female superintendents. The results have implications for institutions of higher education and professional organizations.*

*Keywords:* female administrators, gender bias, minority recruitment, female superintendents, women under-representation

## **Introduction**

A recently released national study stated the percentage of female superintendents increased nearly four times since 1992 (Kowalski, McCord, Peterson, Young, & Ellerson, 2010). The study by the American Association of School Administrators is one of several reports conducted every few years beginning in the 1920s. The most recent outcomes found that from a survey of approximately 2,000 superintendents in the United States, 24% were women, an increase from 14% in 2000 (Kowalski et al., 2010). However, based on national trends for the current rate of change, female superintendents will not attain parity with male superintendents for three or more decades. Gender disparity in the role of the superintendency commands attention since females constitute the vast majority of the public education work force. In 2000, although 72% of all classroom teachers were female, only 14% of all superintendents in the U.S. were female (Hansen, 2011).

According to the archives of the Alabama Association of School Superintendents (E. Mackey, personal communication, October 30, 2012), Alabama appointed the first female superintendent in 1916; however, the job of superintendency remained dominated by males until the 1980s. The percentage of females in the Alabama superintendency fluctuated from 12% to 16% during the 1980s and 1990s and reached a high of 19% in 2010 (E. Mackey, personal communication, October 30, 2012). As changes occurred in proportionate numbers of males and females in states across the nation, Alabama's numbers remained below the national average. The disparity between the number of female superintendents in Alabama and the average number of female superintendents across the nation indicate obstacles for females with ambitions to lead school districts at the superintendent's level. Therefore, this study focused on female superintendents in Alabama.

### **Female Employment Status and Trends**

A snapshot of the employment trends of females in administrative positions enhances the understanding of the barriers that females have overcome and identifies areas where work remains. Tallerico and Blount (2004) focused on the complexities associated with female inroads into historically male work and examined the proportional changes and patterns. Previous research of the advances of women in male-dominated work roles indicated two major factors as causes of gains. According to Matthaei (1982), the causes of the gains included a significant increase in job vacancies and/or the deterioration of the working conditions or rewards of a job. An increase in job vacancies normally resulted from occupational growth, turnovers, incumbent exits, wars, and/or major technological changes. A decrease in the working conditions or rewards of a job led males to lose interest in the job, which, increased job vacancies for females (Matthaei, 1982; Patterson & Engleberg, 1978).

Luxenberg (1985) and Leslie (1987) found specific factors that contributed to males' decreased interest in a job. For example, an increased exit of male physicians from the field resulted partially from increased bureaucratization and declining entrepreneurial potential and profitability. As the interest of men waned toward a job, opportunities for women increased. As illustrated in the field of education, the role of

teacher shifted from a predominately-male occupation to a predominately-female occupation as the number of public schools increased, and teachers' salaries and autonomy declined in comparison to other job opportunities for males (Blount, 1998).

The participation rate in the labor force for women (the percentage of all women working or looking for work) rose steadily during the latter half of the 20th century. The rate increased from approximately 33% in 1950 to 61% in 1999. The types of jobs women performed also changed as their market activity increased. As women increased their levels of education, the work of women grew exponentially in areas of management, professional, and related occupations (U.S. Department of Commerce Economics and Statistics Administration & Executive Office of the President Office of Management and Budget, 2011). According to the Office of Management and Budget (2011),

Among women age 25 - 64 in the labor force, 36 percent held college degrees in 2009 compared to 11 percent in 1970. Over the same period, the proportion of women with less than a high school diploma fell from 34 percent to 7 percent. (p. 27)

Females made substantial progress in the attainment of graduate level degrees, yet still earned fewer than half of the degrees in higher-paying fields. Between 1979 and 2001, the percentages of masters, doctoral, and first-professional degrees earned by females increased. However, advanced degrees followed traditional patterns with women receiving the majority of graduate degrees in education and health and men receiving the majority of graduate degrees in computer sciences, sciences, and engineering. Even though the past 30 years revealed much progress toward parity, females continued as underrepresented in first-professional programs, and gender differences in college majors persisted with females dominating the lower paying fields such as education (U.S. Department of Commerce Economics and Statistics Administration & Executive Office of the President Office of Management and Budget, 2011).

According to Shakeshaft (1989), a summary of work-related trends revealed increased vacancies in administrative positions, female work force participation rate, levels of education for females, antidiscrimination legislation, and number of females in non-traditional occupational roles. In addition, the increased numbers of vacancies and dwindling applicant pools for school superintendent positions opened doors for women aspiring to the executive level job. Shakeshaft (1989) referred to this hiring opportunity as the "golden age for women in school administration" (p. 34). Based on these trends in the role of females in work force administrative positions, closing the disparity gap for females in the superintendency appears favorable. However, barriers remain that prevent upward mobility of females in the field of education administration.

## **Barriers**

While increased job vacancies provided additional opportunities for women, some major roadblocks remained. Pinpointing barriers that contributed to the under representation of females in the superintendency was an essential first step in the identification and development of effective strategies to increase the number of women in all levels of leadership roles in education. Analyses of empirical studies, summarization of results, and categorization according to frequency and themes documented the barriers (Glass, 2000; Hoff & Mitchell, 2008). The research consistently identified barriers as gender

bias, lack of career planning and career path, lack of mentors and networks, limited mobility, family responsibilities, and recruitment and selection processes (gatekeepers).

**Gender bias.** A review of the literature resulted in learning that for more than 30 years females aspiring for the superintendency and females serving as superintendents experienced gender bias (Banuelos, 2008; Björk, 2000; Brunner, 2000; Goffney & Edmonson, 2012; Hoff & Mitchell, 2008; Kowalski & Stouder, 1999; Shakeshaft, 1989). Gender bias existed at the individual or institutional level and surfaced as blatant or concealed acts. During the past decade, however, gender bias was subtle and barely recognizable (Polnick, Reed, Taube, & Butler, 2008).

Banuelos (2008) surveyed and interviewed 35 randomly selected female superintendents in California regarding their experiences of gender bias on the job. The researcher found a discrepancy between the participants' responses on the survey and their responses during the follow-up interviews. Their scaled responses indicated minimal emotional impact in their personal lives from gender bias. However, during the interviews the females reported that gender bias created significant emotional distress ranging from sleep deprivation to depression. Their explanations of the discrepancy between the responses on the survey and interviews ranged from denial to the desire to suppress negative experiences. Inappropriate touching was the most frequent gender bias trait experienced by the females. Goffney and Edmonson (2012) found similar results regarding gender bias in a qualitative study of three novice female superintendents in Texas. The three female subjects, including minorities, indicated that gender more than race had impeded their progress.

Hoff and Mitchell (2008) studied the perceptions of male and female superintendents. A total of 404 superintendents, 57% males and 43% females, participated in the study. The interesting finding was that males and females recognized that gender bias existed and negatively impacted women. The bias presented itself in the recognition of a *good ol' boys'* network and the male dominated image of leadership. To compensate, females reported consciously adopting masculine leadership traits such as decisiveness, appearing tougher, talking less, and putting relational distance between themselves and the staff.

However, Rico (2009) found different results regarding relationship development in a qualitative case study of one female superintendent in a Midwest school district. The researcher triangulated data from multiple in-depth interviews, teacher surveys, field observations, district archives, and superintendent publications to describe the practices of a caring female leader. The study indicated that caring leaders intentionally decided "to consider others in the decision-making process . . . [appreciate] relationships and community building . . . and [commit] to nurturing relationships" (Rico, 2009, p. i).



**Career planning and career paths.** Lack of career planning and career paths affected women more negatively than men (Glass, 2000). Traditionally, male-dominated positions provided a career path to the superintendency (Sharpe, Malone, Walter, & Supley, 2004). Hoff and Mitchell (2008) found a lack of career planning as a barrier for women. The researchers used a mixed-methods approach and collected quantitative and qualitative data from 404 participants. Significantly fewer women than men planned to enter school administration after graduation from college. As reported in the open ended responses, one woman wrote, “I thought I’d teach forever” (Hoff & Mitchell, 2008, p. 7). These findings mirror another study in which no females planned to move into administration when they entered education (Young & McCleod, 2001).

Age of entry into the superintendency is another indication of a lack of career planning. Dana and Bourisaw (2006) found that 72% of female superintendents were mothers. This particular statistic, along with women staying in the classroom longer than their male counterparts, indicated that females entered the superintendency later in life with less leadership experience than their male counterparts. Shakeshaft (1989) noted that males began their administrative careers approximately 10 years earlier than females, placing many females at a selection disadvantage before the process began. This age difference placed many women at a selection disadvantage before they even had their first interview (Dana & Bourisaw, 2006; Tallerico, 2000).

According to Sharpe et al. (2004), the role of high school principal is often a stepping stone on the *pathway* to the superintendency. Many female elementary teachers become elementary principals, a position from which superintendents rarely emerge. The greatest number of positions leading to the superintendency were in secondary schools or the central office. Females historically served in areas of curriculum rather than in preferred, male-dominated roles of human resources or finance (Sharpe et al., 2004).

**Mentors and networks.** Effective resources, such as mentoring and coaching, counteract barriers for minorities advancing to leadership positions; however, for more than 30 years a lack of mentors limited female entry into administration and advancement into the superintendency (e.g., Goffney & Edmonson, 2012; Haar, Raskin, & Robicheau, 2009; Hart, 1995; Lane-Washington & Wilson-Jones, 2010; McGee, 2010; Nugent, 2008; Shakeshaft, Brown, Irby, Grogan, & Ballenger, 2007). “Research has demonstrated that in general women lack mentoring since it has been more often associated with the male model of grooming the next generation of leaders” (Shakeshaft et al., 2007, p. 111). For example, Berman (1999) surveyed the area of upward mobility for female administrators in international schools and concluded that mentoring is an important factor in female administrators’ careers. Mentors provide protégés with career direction and support and assist with career changes. McNulty (2002) found similar results in a study of first-year superintendents in Texas public schools. The superintendents identified the mentor program as having a positive effect on job success.

While numerous other studies identified the importance of mentors for females seeking the superintendency; the availability of mentors for females is only gradually changing (e.g., Campbell-Jones & Avelar-Lasalle, 2000; Eagly & Carli, 2007; Garn & Brown, 2008). The limited availability of mentors and coaches relates closely to the ability of females to network with peers. Katz (2006) found that females experienced difficulties networking with peers and were unwilling to relocate for an administrative

position because of their reluctance to leave the comfort and importance of established relationships and networks.

**Mobility.** Another challenge for many females is the difficulty of relocating for a new position (Dana & Bourisaw, 2006). Hoff and Mitchell (2008) found that females' reluctance to changing districts was one of the top barriers into administration, unlike the willingness of males to relocate. Reasons females cited for their refusal to relocate included the comfort and importance of established relationships and the concept of only moving for a spouse's job. Sixty-six percent of males moved to accept an administrative position compared to 45% of females.

Sharp et al. (2004) analyzed surveys from 118 female superintendents in Illinois, Indiana, and Texas and reported that females perceived males as more mobile in relocating for a superintendent's role. McGee (2010) studied 67 male and female public school administrators in Florida and found the same results. In both studies, job location ranked as fourth in the list of barriers encountered by females seeking the superintendency.

**Family responsibilities.** Dana and Bourisaw (2006) suggested that a potential obstacle to the female superintendent included family responsibilities of females. In a similar study, Barrios (2004) surveyed 38 superintendents; 42 assistant, deputy, or interim superintendents; and 55 board members. The females in the sample identified eight major barriers with regard to their upper mobility to the superintendency. Three of the eight barriers related to family responsibilities: limited time for family and career, career aspirations lower priority than family responsibilities, and family commitments higher importance than career advancement. The findings were consistent with other researchers (e.g., Goffney & Edmonson, 2012; Polka, Litchka, & Davis, 2008; Sharp et al. 2004).

**Recruitment and selection process (gatekeepers).** Researchers identified the superintendent search and selection process as a potential barrier to females gaining access to the superintendency (e.g., Newton, 2006; Shoemaker, 1991; Skria, 1999; Tallerico, 1999). The pathway of the female leader was often fraught with gatekeepers her male counterpart had not faced. A school board member, a highly respected retired administrator, or some community advocate typically served as the gatekeeper. The *good ole boy* fraternity often excluded females by virtue of gender.

Research revealed that the language used in recruitment messages for superintendent searches influenced the hiring of males over females (Newton, 2006). Newton examined the impact of gender, superintendent roles, and district size on the recruitment message for a superintendent vacancy. The sample consisted of 360 randomly selected principals. The results of a 2 X 3 X 3 fixed factor ANOVA revealed, "Women rated position announcements depicting their perceived area of expertise (instructional leadership) significantly more positively than position announcements emphasizing managerial leadership" (Newton, 2006, p. 571). The findings were consistent with previous research that female ratings of recruitment messages depicting specified superintendent roles of instructional, managerial, and political leadership differed.

The values and culture of peers and colleagues excluded females from the *inner circle* of superintendency as well other individuals who represented barriers within the community. Historically, gatekeepers worried about a female in a position of power and

earning a salary possibly higher than any public worker in the district (Doyle, 2012). Dana and Bourisaw (2006) noted that “because women are not usually observed in the more powerful leadership positions, cultures generally will not consider options of electing or appointing a woman to a position that has always been filled by men” (p. 51).

## **Summary**

While the gender-disparity gap in the school superintendent position has narrowed, the trend does not mirror the increase of females in executive level positions in other professions. The decline of working conditions and rewards have contributed to males’ decreased interest in the superintendency. Simultaneously, an increase of females in the labor market and level of education have created a golden opportunity to reduce the under-representation of females in the position. However, barriers still exist that limit opportunities for females in education administrative positions. The barriers identified in the literature included gender bias, lack of career planning and career paths, limited access to mentors and networks, restricted mobility, conflict of job requirements and family commitments, and restricted access by gatekeepers.

## **Method**

### **Research Design**

The researchers received approval from their university’s Institutional Review Board to conduct the multi-phased, mixed-methods design. The quantitative phase accessed the frequency and magnitude of the barriers female superintendents encountered and the follow-up qualitative phase provided in-depth understanding of the barriers. According to Creswell (2012), a mixed-methods approach is appropriate “to obtain more detailed, specific information than can be gained from the results” (p. 535) of quantitative data alone. Creswell (2009) recommends the identification of a “few individuals [from the sample] to help explain” (p. 121) the quantitative results in more depth. By combining quantitative and qualitative data, researchers can construct a comprehensive model of a social phenomenon.

In the quantitative phase of the study, the researchers recruited all first-appointed female superintendents from a single Southern state to answer a Likert-scale survey. The researchers used descriptive statistics to analyze the results. According to Gay, Mills, and Airasian (2006), “descriptive research, also referred to as *survey research*, determines and describes the way things are. It may also compare how sub groups (such as . . . females . . .) view issues” (p. 159). For phase two of the study, the researchers employed a phenomenological qualitative method and selected four of the superintendents to participate in a three-part interview series. The phenomenological method is appropriate to understand the meaning and structure of a lived experience by one or more individuals through in-depth interviews (Creswell, 2007).

### **Participants**

Based on information from the state department of education and the state superintendent association, the researchers developed a list of females who had served or were serving as

superintendents in the state from 1916 to 2013. From 1916 to 2012 there were 56 first-female superintendents in a district with 41 appointed and 15 elected to the position. At the time of the study, 26 of the 41 first-female appointed superintendents were either employed or retired. The researchers sent the survey to the 26 females. Three reminder email messages followed the initial email invitation. Of the 26 participants, 18 or 69% completed the survey.

For phase two, the researchers selected 4 of the 26 participants for interviewing based on their successful tenures as first-appointed females for their school districts. The researchers defined success as length of tenure in the districts, recognition from national and state organizations, and leadership service in professional organizations. Two of the participants were retired and two were currently serving as superintendents. Two participants were appointed to the position from within the districts, and two were appointed from outside their districts. Two females served in small city districts in rural counties, and two served in city districts within a large metropolitan area. All participants had five board members with four- or five-year rotating terms. Two participants had elected board members and two participants had appointed board members. The average student enrollment of the participants' districts was 2,858, similar to most districts in the state. Approximately 72% of school districts in the state had student enrollments below 5,000. The total number of superintendents in the state during their tenures as superintendent ranged from 125 to 134 and the total number of female superintendents ranged from 11 to 21 or less than 17%.

## **Instrument**

The researchers developed the survey instrument from an extensive review of the literature and their experiences as female superintendents. The survey consisted of 29 items; Questions 1 – 3 related to the participants' current status; Questions 4 – 11 involved nominal level data items designed to establish occupational, educational, and experiential background; and Questions 12 – 29 consisted of Likert-type scale items identified in the literature as barriers for female superintendents. The participants ranked these items on a 4-point scale ranging from strongly disagree (1) to strongly agree (4). The researchers electronically communicated the survey to the participants utilizing the survey tool, Qualtrics. The survey took approximately five to eight minutes to complete.

After the development of the initial survey, a panel of five experts reviewed it for validation. The panel consisted of current or former superintendents not included in the population sample. Based on the experts' comments and suggestions, the researchers revised the survey instrument. The revisions included rewording of items for clarification and reclassification of possible responses (see Appendix A for the final version of the survey).

## **Interviews**

The researchers collected data from an open-ended, three-part interview series design with first appointed superintendents. According to Creswell (2012) an open-ended interview design can be used as the sole data source or can be used in conjunction with other data sources. The purpose of the interviews was to understand the life experiences

of a particular phenomenon and the meaning participants derived from the experiences. The researchers developed a limited number of questions for each interview in the series and only asked additional questions for clarification or follow-up (Creswell, 2009). The first series of interviews explored the participants' initiation into the school superintendency, the second series concentrated on the resources available and/or provided to gain access to the superintendency, and the third series focused on the participants' reflection of the impact of being a female superintendent.

Each interview was conducted by one of the two researchers. The duration of each interview was approximately 45 minutes spaced 7 to 9 days apart in a location convenient to the participants. Each session was audio recorded and later transcribed.

## **Data Analysis**

The survey instrument in phase one focused on the participants' career paths to the superintendency, descriptions of their districts, mentor experiences, networking opportunities, acquired knowledge and skills, resources available, and obstacles encountered. The researchers used descriptive statistics to analyze the surveys. The interviews focused on the participants' journey to the superintendency, experiences during their tenures, and reflections of their legacies. The researchers analyzed the interview transcripts by developing codes to reveal patterns and to identify themes. The codes, patterns, and themes were triangulated with secondary data, survey data from phase one, and a review of literature to gain insight into what the participants perceived as opportunities and barriers to their career paths.

## **Results**

### **Quantitative Phase**

The results of the survey are reported by the following topics: demographics and background; career planning and career paths; resources: mentors, networks, knowledge; obstacles: mobility, family, gender; and recruitment and selection process.

**Demographics and background.** When the 18 female participants completed the survey, only two were currently serving as superintendents, 15 were 60 years old or older, 16 were Caucasians, and two were African-Americans. The participants described the school districts for their first superintendent position as urban (33%), suburban (33%), and rural (33%). The majority of the participants (72%) reported student enrollments in their first district as 4,000 or less, and only two participants reported student enrollments of 8,000 or more. Immediately prior to their first superintendent appointment, 44% worked in the district, and 56% worked outside the district but in the same state.

**Career planning and career paths.** The majority of the participants were 49 years old or younger when appointed to their first superintendent position. Of the remaining seven participants, six were appointed before age 60 and only one was appointed after age 60. Prior to their appointments as superintendent, all 18 participants previously served as an administrator in the central office, and 15 previously served as a principal with seven at the high school level, four at the middle school level, and five at the elementary school level. Only two participants did not have an earned doctorate

when appointed to their first superintendent position. The females received limited support for career planning from their professional organizations and their college or university professors with a mean ranking of 2.24 and 2.18 respectively.

A majority of the participants entered the superintendency before age 50. All participants previously served in a central office position, and one-half of the females previously served as a high school principal.

**Resources: mentors, networks, knowledge.** All of the participants had mentors, but the majority indicated that the mentors were not provided through a formal mentoring program. In fact, only one female participated in a formal mentoring program. All the participants had male mentors, and only one participant identified a female as one of her mentors. The majority of respondents (94%) credited their male mentors for guiding their career paths to the superintendency.

Most of the females (76%) agreed that their professional organizations provided opportunities to expand and strengthen their professional networks, but only 56% agreed that their college or university professors provided similar support. While 83% of the respondents credited their college or university course work for strengthening their leadership skills, only 66% agreed that their professional organizations provided similar support. Also, 67% agreed that they had an understanding of the political structure as it related to the position of school superintendent.

**Obstacles: mobility, family, gender.** The respondents did not identify geographic mobility or family responsibilities as a major obstacle in securing their first superintendent position. Only 11% identified family responsibilities, and 28% identified geographic mobility. The perceptions of participants were equally divided between the effectiveness of anti-discrimination legislation and increased opportunities for females in the school superintendent position.

**Recruitment and selection process.** Approximately 89% of the respondents disagreed that their mentors and/or professional networks helped establish relationships with superintendent search firms and/or consultants. All respondents received assistance in securing their first superintendent position from males rather than females. In addition, 28% of the females did not have an understanding or knowledge of the hiring practices and processes for the superintendent position, and 29% did not have knowledge of superintendent vacancies in their geographic preference areas. One or more of the following people and/or organizations contacted and/or identified females as candidates for their first superintendent positions: 61% by a member of the local school board, 39% by personal knowledge of the position, 17% by a professional colleague and/or mentor, 11% by school board organization, 11% by a private search firm or consultant, and none by a college professor.

## **Qualitative Phase**

The results of the three-part interview series with four superintendents were reported by the following themes: career planning and career paths, mentors, mobility and family responsibilities, recruitment and selection process, networking, knowledge and skills, and gender bias. The interviewees were identified as Participants A – D.

**Career planning and career paths.** For all four participants, education was their first career, and they entered the profession as a K – 12 teacher. None of them

anticipated nor intended to be a superintendent during their undergraduate program or even when they began their graduate programs. Participant B had intended to pursue a career in law enforcement and Participant A had majored in English in undergraduate school and only pursued teacher certification on the advice of her father. “My father said to me, ‘Why don’t you just get a teacher’s certificate while you are at it. So I did. . . . You know that is just what women did then. They were teachers or nurses.’” Both Participants C and D planned teaching careers and one taught in an elementary school and one taught in secondary schools.

The participants’ primary responsibilities in their first administrative roles were related to curriculum and instruction. Participant D: “In that role I coordinated all instructional programs including textbook adoptions, federal programs, observations of all non-tenured teachers, design and implementation of a tech-prep program . . . and a vocational center. . . . I was promoted to director of secondary schools. . . . [and] with all their instructional . . . issues under my purview of authority.” Participant B moved from teacher to “curriculum director” for the school district. Participant C was hired from a teaching position to “start a new school” in another district and then “became assistant superintendent for curriculum and instruction.” Participant A was promoted from a middle school teacher to “an instructional specialist” in the same school “which was an assistant principal for instruction, essentially.” Later Participant A was hired as a high school instructional specialist and director of instruction in two other districts.

However, of the four participants, only Participant B entered the superintendent position during the latter part of her career. She “spent 16 years” as a teacher and “11 years as curriculum and federal programs director” in a central office before becoming superintendent. Participants A, C, and D moved more rapidly than Participant B from teacher to central office position, to superintendent. Those three participants spent an average of 6 years as a teacher and an average of 7 years in a central office position before their appointment to a superintendent position. Participant C: “I was hired as a principal when I was 27 years old.”

Early in their careers, all participants enrolled in graduate programs to qualify for additional certifications and/or earn graduate degrees. As Participant A stated, “I went to school a lot.” Participant D: “After two years [in an administrative position] I decided to pursue a doctorate. . . . I entered a program in administration and planning to keep all options open.” Participant C: “I went straight through school because I wanted to be a principal of a neighborhood school. . . . I completed my PhD at age 27.”

None of the participants planned to enter administration after completing their undergraduate degrees. Even when the participants moved up the ladder to administrative positions, they did not immediately consider the superintendency as a viable career option. Participant A: “It had never in my life occurred to me that I would be a superintendent . . . [until] the Board . . . made me assistant superintendent. There were no female superintendents in the . . . area. There were only . . . [a few] female superintendents in the state, but I did not know them. . . . While I was assistant superintendent, I thought, ‘Maybe I can be superintendent.’” Participant D: “While attending [doctoral] classes, and especially the class on the Superintendency, I came to realize I could be successful as a superintendent.”

**Mentor.** Participant C: I did not participate in any formal mentoring program.” Participant A: “None of the mentors . . . said, ‘I am your mentor’ and I did not say ‘Will

you be my mentor.’ They were . . . all unofficial who just decided to help me.” All the unofficial mentors were males in influential administrative positions, except for one male college professor.

All the participants credited their mentors for providing connections that enabled them to advance in leadership positions and/or gain acceptance in the community. Participant A: “They . . . gave me introductions to people in positions that could hire me or be helpful to me. . . . He [mentor] heard that a position was coming available in [district] . . . and called the superintendent and said that I would be good for the job.” Participant C: “He [mentor] encouraged the board to recruit me to be their superintendent.” Participant D: “He supported my intention to apply for the superintendent position and spoke positively to board members about my competence for the position.” Participant B was appointed superintendent from outside the district and did not know the community. She described mentors that provided introductions in the community. “After I was named superintendent . . . I tried to find people . . . who knew the community and the ropes. I was lucky because [mentor] was a former superintendent . . . and called people. . . . He helped in that way.” She described another mentor that helped with community introductions and background information. “He [mentor] knew everything about the people and community. . . . He prepared the way for me.”

Mentors provided encouragement for all the participants. Participant D: “The [mentor] told me on several occasions that I would make a good superintendent.” Participant C talked about several different male mentors: “He believed in me at an early age, supported and guided me as a young principal, and used me on [state committees] when . . . I was a superintendent. I remember him saying . . . he knew me and that I was a good superintendent. His words and encouragement meant a lot to me. . . . He has always believed in me and supported me.” She spoke about another male mentor: “When I was assistant superintendent . . . [mentor] . . . encouraged me to become a superintendent.” Participant B’s mentors offered support by encouraging her to seek superintendent positions. “Both mentors wanted me to be successful.” Participant A’s mentors provided similar encouragement. “[He] . . . tried to mentor me into the superintendency in [district].”

The mentors provided valuable opportunities for the participants to expand their knowledge. Participant C: “He gave me opportunities to expand my repertoire. I was responsible for curriculum and instruction; however, he assigned me to oversee the budget . . . He also spent time preparing me for a public interview. We actually reviewed possible questions and coached me on my responses. He also helped me to know what questions I needed to ask the board and how to tell if a system was a good fit for me.” Participant D reported that her mentor expanded her authority and supervision, met with her regularly to provide feedback on her performance. “I met with him at least monthly. . . . He shared his thoughts and ideas on how to manage the work or the latest controversy. . . . He certainly helped me in my career.”

**Mobility and family responsibilities.** Participants received support from their children and/or their spouses to continue their education and to serve in executive leadership positions. Not all colleges and universities offered doctorate programs so the participants had limited opportunities to earn a terminal degree. The university in Participant A’s geographic location offered a joint doctoral program with a university in another part of the state. Participant A: “I had to do something in [city] because that was



where my children were.” Participant C: “I got married and started in the master’s program. Finished the master’s degree and went into the doctoral program because . . . lived in [city] which is close proximity to the university.” Participant D had teenage children when she began her doctoral program. “[University] was closer to [city], but their courses were two nights a week from 5:00 to 9:00. There was no way I could leave work [early] that often. . . . [University] had weekend college and although I had to drive [several hours] one way . . . it was doable.” When Participant B needed to complete the necessary certification requirements, her family responsibilities had been reduced, and she was able to commute an extended distance. “I did not have the required certification and [Institution] was close, so I went there.” Participant D: “During my tenure as superintendent, I had no children at home. My husband continued to commute to [city] for his job. However . . . my parents . . . had numerous [health] issues. Caring for both of them made it difficult to continue to serve [as superintendent].”

**Recruitment and selection process.** Two of the participants were hired from within the district and two were hired from outside the district. If a search firm selected the superintendent, a current board member or one of the participant’s mentors referred the participant’s name to the search firm. So the participants were either the inside candidate known for her knowledge and leadership skills or recommended by an influential male mentor. Participant C: “A school board member in [district] called me and asked me to consider applying to be their superintendent. She had toured my school when I was a principal. . . . An attorney . . . who had worked with me on a bond issue in [district], encouraged the [district] board to recruit me to be their superintendent.” Participant D: “He . . . told the [district] board members he was grooming me to replace him one day.” Participant B: “The board president came to me and asked why I did not have an application with them.” When Participant A’s superintendent notified the board he was searching for a new position, “the board made me assistant superintendent. . . . and said, ‘We want you to’ [assume superintendent responsibilities while he is searching for a new position]. . . . The board said they were going to look internally first and then look externally. . . . I think they wanted me [to apply].”

**Networking.** Participation in state and national organizations provided opportunities to expand their knowledge, skills, influence, and recognition. Participant C: “I became a member of a [national] superintendents’ network. . . . This is a group of likeminded, reformed oriented superintendents who meet a few times each year to learn together. We all were united by our desire to truly transform public schools. Their stories have encouraged and inspired me.” Participant D: “I began attending [the state school superintendent association] meetings with our superintendent and gained a system-wide view of the challenges in running a school system.”

The participants, also, reflected how networking provided opportunities for them to re-connect with their mentors. Participant C: “I consult with the state school board association. . . . I have now come full circle and am co-consulting with [former mentor] with [district].” Participant A: “So it was like a circle, so then I was his mentor. . . . Interesting how those things come around.”

**Knowledge and skills.** The participants reported the following strengths: instructional leadership, collaboration and problem solving skills, relationship development, fairness, trustworthiness, and transparency. Some of the participants

reported knowledge and skill gaps in board governance, navigating the political culture, and managing the construction process.

Participant A: “While I was assistant superintendent, I solved a lot of [community and employee relation] issues and problems. . . . Forming relationships is important and I don’t think women are better than men, but I think that women have to do it [to be successful]. . . . I had a good relationship with all of [the board members].”

Participant D: “My greatest success was building a wonderful working relationship with the school board built on trust and shared goals. Together we [had] many successes that benefited the students and . . . community as a whole.” Participant B reported one of her best accomplishments was the implementation of an instructional program that improved the graduation rate for at-risk students. She also resolved legal and personnel issues. “I did not expect . . . [some types] of problems. . . . I was sued for discrimination and won . . . the cases because I had documented everything and followed everything to the letter of the law. . . . This was just common sense and not from any training in college courses.”

Participant C: “I worked with some of the greatest educators who had the same passion for student learning. Together we improved teaching and student learning.”

The participants articulated knowledge gaps that were a hindrance in their careers.

Participant B: “I did not know anything about interactions with a board. . . . I was not at all prepared . . . to handle all the board issues. . . . I learned [on the job] . . . I knew nothing about bids . . . the bid process and construction.” Participant C reported inexperience in navigating the political culture. Her superintendent’s network provided support and resources “through difficult political situations.”

**Gender bias.** Overall the participants reported that board members and superintendent colleagues were supportive of females in the role of superintendent. Participant A reported that her board was not biased. “None of the board members was [biased] but . . . a strong community member, took me out to lunch and said, ‘I don’t know if you know it, but there was a strong push back before you were hired—not from the board but other community members—that they should not hire you because you are a woman.’ No board member ever mentioned it to me.”

All the participants indicated that their colleagues were supportive. Participant A: “I don’t think men thought we were interested in the superintendency, it was not that they were against us. . . . When I started attending the district superintendent meetings, I was the only female. . . . they [superintendents] were very, very nice to me. They accepted me. . . . The first person who called me [after I was appointed to the superintendent position] was . . . a female superintendent. She said, ‘Welcome to the club. Call me anytime you need me.’” Participant B reported relationships that she established with two female superintendents in the state. “I came to know both of these women. . . . I listened to [her] ideas and used several. She is a success story for me.” Participant A: “The [district] superintendent . . . called me and said, ‘Come talk to me and I will give you some advice about your contract.’”

The gender bias challenges usually came from a few community members or groups, male high school principals, and private contractors. Though there were a few blatant bias acts, most of the acts were subtle or concealed. However, over a period of time the participants were able to quiet most of the naysayers. Participant A: “One of the Rotary Club members . . . told me that his idea about the glass ceiling issue had totally changed and the reason was because his daughter was in a [male dominated] profession

and had run into those . . . issues.” Participant C: “Because I had not been a coach, some assumed I was not supportive of athletics. No matter how much I did to support athletics . . . there were still some [community members] who continued to say I was not supportive.” Participant D: “I never enjoyed the warm *good ol’ boy* relationship with those in charge of the town; but they respected me.”

Participant A: “He [principal] always insisted on calling me *Honey* and I just let it go.” Participant D: “I did face the challenge from a few men that thought a woman couldn’t do the job. A principal retired because he wasn’t ‘going to work for a woman’ . . . [Later] he apologized . . . and [said] that he had been unfair in his assumptions. . . . The question of a woman being able to do the job never surfaced again. Participant C: “I had some . . . contractors and subcontractors who initially treated me as if I was not knowledgeable. . . . I did have one vendor who told me that ‘this was far too complicated’ for me to understand.” Participant B: I was . . . not prepared for the attitudes towards female superintendents [from certain employees and contractors].”

The participants addressed how gender bias impacted their leadership style. Participant A reported that she had to be assertive in a “softer way than men. . . . In order to get people to do things or to tell them they can’t do things, [females] cannot be as outwardly assertive as a man. . . . So my challenge was how to do that and . . . [do] it successfully. . . . I probably did get more assertive in certain areas. . . . but I still could not let go of the Southern niceness.” Participant D tended to be less aggressive on pursuing certain projects if it could ignite negative female leadership perception. “In the superintendency, timing is everything. . . . Initially this group was opposed to [the project], so instead of pushing it through 4-1, we worked with the issue over time. . . . [It] took two years . . . until I had a 5-0 vote. . . . Afterwards . . . the [person] said he was wrong and I was right about the [project].”

## Discussion

Mentor relationships and support emerged as the primary reason for the females’ successful career paths. Secondary support resources included networking opportunities, collaboration skills, instructional leadership, fairness, and transparency. Family responsibilities and gender bias presented challenges on their journeys to the superintendency; however, the largest obstacles were lack of career planning and inadequate preparation and knowledge of board governance, the political culture, and the construction process.

## Opportunities

While none of the females participated in a formal mentoring program, all had one or more mentors. All the participants credited their mentors for their successful career path. The research studies of McNulty (2002) and Goffney and Edmonson (2012) supported their claims of mentors providing access to the superintendency. The lack of formal mentoring programs is documented in the literature (Shakeshaft et al., 2007). None of these participants had formal mentors despite the trend of increased mentorships for females as reported by Brunner and Kim (2010).

Often the mentors were their link to networking opportunities. The participants identified networking as a resource that provided opportunities for them to expand their knowledge, increase their sphere of influence, and collaborate with likeminded colleagues.

The participants' attributed their success as superintendents to their knowledge and skills in instructional leadership, collaboration, and relationship development and their management of fairness, trustworthiness, and transparency. Others (e.g., Korcheck, 2002; Rio, 2009) reported similar leadership strengths for female superintendents.

## **Obstacles**

Limited mobility due to family responsibilities was an obstacle for the participants in their pursuit of advanced degrees and additional certifications. The participants' selection of a university or college was based on geographic location and flexibility of the instructional delivery model. These findings were consistent with the results of Dana and Bourisaw (2006). However, only one participant reported family responsibilities interfering with job responsibilities. Since the participants received support from their families, this barrier had limited negative impact on their career paths (Dana & Bourisaw, 2006).

The increased visibility of women in management and non-traditional occupational roles (U.S. Department of Commerce Economics, 2011) resulted in a reduction of gender bias the participants experienced from the community. Polnick et al. (2008) reported similar findings in their research. The females' awareness of gender bias influenced their leadership style. However, instead of adopting masculine leadership traits as reported in other research (Hoff & Mitchell, 2008), they compensated by capitalizing on perceived feminine traits of consensus building and relationship development. Likewise, Rico (2009) found female superintendents consciously built a caring culture in the district and community.

The female participants entered the profession as K – 12 teachers. Their primary job responsibilities for their first administrative position were curriculum and instruction, and they did not plan a career path to the school superintendency. These experiences are consistent with findings from other studies (e.g., Glass, 2000; Hoff & Mitchell, 2008; Sharpe et al., 2004; Young & McCleod, 2001). However, in contrast to previous studies (i.e. Dana & Bourisaw, 2006; Shakeshaft, 1989; Tallerico, 2000), three of the four participants moved quickly from teacher to an administrative position and then to the superintendency. Their timelines to the superintendent positions were similar to their male counterparts. In addition, none of the participants had served as a secondary principal, which was inconsistent to the career path documented in previous studies (Sharp et al., 2004). The participants followed the education trends as reported by the U.S. Department of Commerce Economics and Statistics (2011). They were enrolled in graduate programs and obtained certification in multiple areas early in their careers.

The participants reported a need for practical experience and knowledge in the areas of board governance, political culture, and the construction process. These knowledge and skills gaps were expected since females' typical job responsibilities were related to curriculum and instruction and not finance, maintenance, and human resources (Glass, 2000; Sharpe et al., 2004).

## **Conclusion**

Since the study was limited to first-appointed female superintendents in one Southern state, use caution regarding generalization of the findings. The obstacles and opportunities reported by first-appointed female superintendents in Alabama might only be representative of females who were first to break the gender barrier in school districts in Alabama or the Southeastern United States in appointed rather than elected positions. Because Alabama is only one of three states with elected and appointed superintendents, first-elected female superintendents were not included in the study (E. Mackey, personal communication, August 3, 2015).

Since mentors continue identification as one of the most significant factors for females' successful entry into the superintendency, representatives from state departments of education, universities and colleges, and professional organizations could collaborate and establish formal mentoring programs with specific structures for issues related to females. An important first step in supporting females new to the superintendency could include the identification of a pool of influential mentors to provide connections, opportunities to expand their knowledge and skills, encouragement, and feedback on performance. The collaboration among the institutions could extend to the development of networking opportunities for aspiring female leaders.

Career planning could begin in undergraduate education programs and continue through all levels of graduate programs. Creating forums and other opportunities for students to interact with females in influential leadership positions could encourage potential future leaders in education, support them in developing their skills, and remove some of the barriers to females in leadership. Collaboration among institutions could provide students explicit information on career paths, and knowledge about gender bias in the workplace.

As education leadership graduate programs restructure instructional delivery models to include greater flexibility that accommodates students in remote geographic locations and with limited flexibility in work hours, females could access the graduate degrees and certifications required for advancement. Course objectives or standards should include students' working knowledge of board governance, the political culture of a school district, the construction process, and gender bias in the work place.

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Appendix A  
**Women's Journey to the School Superintendency Survey**

Authors: Peggy H. Connell and F. Jane Cobia

Developed July 2013

Online Survey in Qualtrics

**Directions: Select the correct answer for each item below. Follow the instructions to submit.**

1. Have you served as an appointed school superintendent? (If the answer is no, please do not continue the survey.)
  - Yes
  - No
  
2. Are you presently a school superintendent?
  - Yes
  - No
  
3. Current age
  - 39 or younger
  - 40 to 44
  - 45 to 49
  - 50 to 54
  - 55 to 59
  - 60 or over
  
4. Age when first appointed to a superintendent position
  - 39 or younger
  - 40 to 44
  - 45 to 49
  - 50 to 54
  - 55 to 59
  - 60 or over
  
5. Educational experience prior to the superintendent position; select all that apply
  - Elementary School Principal
  - Middle School Principal
  - High School Principal
  - Asst. Superintendent/Director/Supervisor
  - None of the responses
  
6. How were you contacted and/or identified as a candidate for your first superintendent position? Select all that apply.
  - Private search firm or consultant
  - School board or school superintendent organization
  - Local board solicited

- Personal knowledge of position opening/self-referral
  - Professional colleague/mentor
  - College professor
  - Life coach
  - Other
7. What was the highest degree held when appointed to your first superintendent position?
- M.A./M.S
  - Ed.S./6-year degree
  - Ed.D./Ph.D.
8. Where did you work immediately prior to your first appointed superintendent position?
- Worked in the district
  - Worked outside the district, but in the same state
  - Worked outside the district and outside the state
  - Other
9. Description of the school district for your first superintendent position
- Urban
  - Suburban
  - Rural
10. Student enrollment of the school district for your first superintendent position.
- 2,500 or less
  - 2,501 – 4,000
  - 4,001 – 8,000
  - Over 8,000
11. Select the response that best describes your race/ethnicity.
- Caucasian
  - African-American
  - Latina
  - Asian
  - Other
  - Do not wish to respond

**Directions: Read each statement carefully. Indicate your level of agreement or disagreement with the statements below by clicking the appropriate response for your choice.**

12. My mentor(s) was/were instrumental in guiding my career path to the superintendency.
- Strongly Disagree
  - Disagree

- Agree
  - Strongly Agree
13. My mentor(s) was/were female(s).
- Strongly Disagree
  - Disagree
  - Agree
  - Strongly Agree
14. My mentor(s) was/were male(s)
- Strongly Disagree
  - Disagree
  - Agree
  - Strongly Agree
15. Male mentors and/or colleagues provided more assistance in securing my first superintendent position than female mentors and/or colleagues provided
- Strongly Disagree
  - Disagree
  - Agree
  - Strongly Agree
16. My mentor(s) was/were provided through a formal mentoring program.
- Strongly Disagree
  - Disagree
  - Agree
  - Strongly Agree
17. My mentor(s) and/or professional network helped me establish relationships with superintendent search firms and/or consultants.
- Strongly Disagree
  - Disagree
  - Agree
  - Strongly Agree
18. My professional organization(s) provided opportunities to expand and strengthen my professional network.
- Strongly Disagree
  - Disagree
  - Agree
  - Strongly Agree
19. My college/university professor(s) provided opportunities to expand and strengthen my professional network.
- Strongly Disagree
  - Disagree

- Agree
  - Strongly Agree
20. My professional organization(s) assisted in my career planning and career path to the school superintendent position.
- Strongly Disagree
  - Disagree
  - Agree
  - Strongly Agree
21. My college/university professor(s) assisted in my career planning and career path to the school superintendent position.
- Strongly Disagree
  - Disagree
  - Agree
  - Strongly Agree
22. My professional organization(s) provided leadership activities and/or opportunities that strengthened my leadership skills for the superintendent position.
- Strongly Disagree
  - Disagree
  - Agree
  - Strongly Agree
23. My college/university course work strengthened my leadership skills for the superintendent position.
- Strongly Disagree
  - Disagree
  - Agree
  - Strongly Agree
24. Prior to my first superintendent appointment, I had a thorough understanding and knowledge of the hiring practices and processes for the superintendent position.
- Strongly Disagree
  - Disagree
  - Agree
  - Strongly Agree
25. Prior to my first superintendent appointment, I had an understanding of the political structure as it relates to the position of school superintendent.
- Strongly Disagree
  - Disagree
  - Agree
  - Strongly Agree

26. Prior to my first superintendent appointment, I had knowledge of superintendent vacancies in my geography preferences.
- Strongly Disagree
  - Disagree
  - Agree
  - Strongly Agree
27. Anti-discrimination legislation has increased the opportunities for females in the school superintendent position.
- Strongly Disagree
  - Disagree
  - Agree
  - Strongly Agree
28. Geographic mobility was a hindrance to securing my first superintendent appointment.
- Strongly Disagree
  - Disagree
  - Agree
  - Strongly Agree
29. Family responsibilities were a hindrance to securing my first superintendent appointment.
- Strongly Disagree
  - Disagree
  - Agree
  - Strongly Agree

Appendix B

Tables B1 and B2

Table B1  
*Survey Summary of Demographics and Background Responses*

Current Superintendent		Current Age		Age First Appointed		Ethnicity	
Yes	2 11%	45 – 49	1 6%	39/under	2	White	16
No	16 89%	50 – 54	1 6%	40 - 44	5	Black	2
		55 – 59	1 6%	45 – 49	4	11%	
		60+	15 83%	50 - 55	5		
				55– 59	1		
				60+	1		
				6%			

Table B2  
*Survey Summary of Educational Experience*

Degree First Appointment	Prior Educational Experiences		Location Prior to Appointment		
Ed. S. 11% 6+ Degree	2	Principal	16 89%	District	8
		Elementary	5 28%	44%	
		Middle	4 22%		
		Secondary	7 39%	Other District	10
EdD 89% PhD	16	Asst./Director/ Supervisor	18 100%	56% Same State	