URBAN HIGH SCHOOL ADMINISTRATORS SECOND ORDER CHANGE

The purpose of this study was to investigate the possibility of a relationship between second-order change leadership behaviors of high school administrators and changes in student achievement on the Florida Standards Assessment English Language Arts/Reading component and the Algebra 1 End of Course examination in two large urban school districts. This study further sought to determine the leadership behaviors that high school administrators felt had the most impact on student achievement. As a mixed-method research study (N = 69), quantitative and qualitative data were collected for analyses. Quantitative data were collected via the Principal Actions Survey (PAS) developed by La Cava (2009). A Pearson r correlation was conducted to determine if there was a relationship between individual principal scores on the PAS and changes in student achievement from school years 2016 and 2017. Qualitative data were collected via telephone interviews using the Second-Order Change Principal Interview Protocol (Taylor, 2007). A thematic analysis was utilized to determine themes among administrator responses, specific to the seven leadership responsibilities determined by Marzano, Waters, & McNulty (2005). Themes were determined by frequency of occurrences among interviewees. The quantitative analysis determined that there was no statistically significant relationship among the mean scores of principals on the PAS and changes in student achievement. Qualitative analysis revealed themes specific to administrator change implementation. Themes included: creating a culture of change, data-driven professional learning communities, professional learning, development, and administrator leadership.

As educational leadership theories evolve, attention has turned to the role of school districts and educational leaders in creating the supports necessary for teachers to sustain engagement with challenging new ideas about their practice (Galluci, Van Lare, Yoon, & Boatright, 2010; Gu & Sammons, 2016). The type of principal leadership is moderated by specific factors, including accountability for student learning. Instructional leadership refers to those who have a major focus on creating a learning climate free of disruption, a system of clear teaching objectives, and high expectations for teachers and students (Hattie, 2009). Fullan and Knight (2011) identified the need for principals to be change agents at the instructional and organizational levels to promote systematic change.

Marzano, Waters, and McNulty (2005) identified 21 responsibilities of administrators of which seven were coined factors or behaviors of second-order change: (a) knowledge of curriculum, instruction, and as-

sessment; (b) optimizer; (c) intellectual stimulation; (d) change agent; (e) monitoring/evaluating; (f) flexibility; and (g) ideals/beliefs. The authors wrote that second-order change leadership behaviors promote "deep change" within educational organizations and involves departures from the expected both in defining a given problem and finding a solution. Although accepted by many as the preferred leadership approach, transformational leaders may or may not bring about second-order change defined as a significant departure from the norm accompanied by a sense of urgency (Taylor & La Cava, 2012). Second-order change requires instructional leadership focused on improving student learning. The study was structured to investigate the specific relationship between perceived second-order change leadership factors or behaviors of high school administrators and student achievement outcomes of the schools they served.

Purpose

The purpose of this study was to investigate the possibility of a relationship between second-order change leadership behaviors of high school administrators and changes in student achievement as measured by the Algebra 1 End-of-Course (EOC) Examination and Florida Standards Assessment (FSA) English and Reading Component for school years 2016 and 2017. The researcher analyzed data using the self-reported actions of high school administrators and students' achievement outcomes.

Another purpose of this study was to investigate prior conclusions of La Cava (2009) and Kearney (2012) who researched the correlations between Florida Department of Education assigned elementary school grades and self-perceptions of second-order change leadership behaviors among principals in high poverty (60% or more) elementary schools in two different school districts.

Conceptual Framework

Shifts in educational reform have reinforced "demands for greater accountability, especially appeals for the use of more outcome-based measures…" (Lunenburg, 2010, p. 1). This shift has brought with it dramatic changes in what public education needs from principals (Bolman & Deal, 2018). In the new era of accountability, administrators "need to be educational visionaries; instructional and curriculum leaders; assessment experts; disciplinarians; community builders; public relations experts; budget analysts; facility managers; special program administrators; and expert overseers of legal, contractual, and policy mandates and initiatives" (National Association of Secondary School Principals, 2013, p. 1). Policymakers aiming to improve schools on a large scale invariably assume that the success with which their policies are implemented has much to do with the nature and quality of local leadership, especially leadership at the

school level (Leithwood & Jantzi, 2006).

Early models of instructional leadership may be prescriptive and describe instructional leadership as the integration of the tasks of direct assistance to teachers, group development, staff development, curriculum development, and action research (Glickman & Gordon, 1995). DuFour (2002) observed that instructional leaders should have knowledge of curriculum, instruction, and assessment. Hallinger (2003) put forth three dimensions of instructional leadership, noting that instructional leaders: (a) define the school's mission; (b) manage the instructional program; and (c) promote a positive school climate that is conducive to learning (p. 6). Consistent with Hallinger and DuFour, Stewardt (2006) suggested that instructional leadership focuses on school goals, the curriculum, instruction, and the school environment. Inherent in the concept of instructional leadership is the notion that learning should be given top priority, and everything else revolves around the enhancement of learning (Jenkins, 2009). As school administrators take on more active roles as instructional leaders, there must inherently be "a redefinition of the role of principals, one that removes the barriers to leadership by eliminating bureaucratic structures and reinventing relationships" (Jenkins, 2009, p. 37). Most recently, Gurley, Anasy-May, Oneal, and Dozier (2016) discuss the necessity to implement such behaviors and practices while incorporating current practices as a result of school accountability.

Bolman and Deal (2018) discuss the necessity to change the normative structure of school leadership by evaluating the lenses through which leadership is accomplished. Fullan (1993) noted that change leadership comes with obstacles. He discussed the need to diagnose the needs of an organization and map the terrain or analyze the relationships and how one change may impact another before implementing change which in turn may cause disruption if the organization is stabilized. As principals restructure educational organizations to meet the needs of stakeholders, "Principals are responsible for working with the entire spectrum of stakeholders: from students to school board members, parents to policy makers, teachers to local business owners, support staff to union officials" (Mangin, 2007, p. 319). The Wallace Foundation (2013) believes that principals should perform five key functions to include: (a) shaping a vision of academic success; (b) creating a climate hospitable to education; (c) cultivating leadership in others; (d) improving instruction; and (e) managing people, data, and processes to foster school improvement. Principal perception and, in turn, principal behavior determine the extent to which school leaders influence organizational change for student improvement (Urick & Bowers, 2014). There has been "consistent evidence that demonstrates the potential positive and negative impacts of leadership, particularly principal leadership, on school organization, culture and conditions, and, through these, on the quality of teaching and learning and student achievement" (Day, Gu, & Sammons, 2016, p. 223).

Second-order change deviates from the norm and an alternative approach is carried out to meet the needs and priorities of educational institutions. Given this notion, "second-order change requires a different approach to leadership" (Marzano et al., 2005, p. 116). Such change can be characterized as innovation-driven, irreversible, and requiring fundamental change from current practice. Marzano, Waters, and McNulty (2005) identified 21 leadership factors or behaviors that are important for school leaders, seven of which they identified as factors of second-order change: (a) knowledge of curriculum, instruction, and assessment; (b) optimizer; (c) intellectual stimulation; (d) change agent; (e) monitoring/evaluating; (f) flexibility; and (g) ideals/beliefs (Marzano et al., 2005, pp. 70-72). Furthermore, Marzano et al. (2005) expressed the belief that second-order change leadership must be present among school leaders to aid in the effective transformation of schools in relation to policy and structural and instructional decision-making processes. These priorities cannot be met with traditional leadership approaches; they must be accomplished through second-order change leadership behaviors (La Cava, 2009).

Research Questions

This study was guided by four research questions:

1) What are the overall Principal Actions Survey (PAS) scores for high school administrators and the seven leadership factors of second-order change, determined by Marzano, Waters, and McNulty (2005)?

2) To what extent, if any, does a relationship exist between the scores of high school principals on the Principal Actions Survey (PAS) and the change in student achievement from the school year 2016 to 2017 (Algebra 1 End-of- Course Examination and Florida Standards Assessment English Language Arts/Reading)?

3) How do reported second-order change leadership behaviors of high school administrators compare with the findings of elementary school administrators reported by La Cava (2009) and Kearney (2012) on the Principal Actions Survey (PAS)?

4) According to high school administrators, what leadership behaviors have the most influence on changes in academic student achievement?

Methodology

This study utilized a mixed-methods research design to investigate the possibility of a relationship between second-order change leadership

behaviors of high school administrators and changes in student achievement from the school year 2016 and 2017 on the Florida Standards Assessment ELA/Reading component and the Algebra 1 End-of-Course Examination. Through purposive sampling, participants were selected based on the criteria that they were current high school administrators (i.e., principals and assistant principals) in the traditional public-school sector, excluding charter and special schools, in two large urban school districts in Florida.

Population

The targeted population for this study consisted of approximately 45 high school principals and 190 high school assistant principals in two large urban diverse school districts in Florida. The research specifically targeted principals and assistant principals in the high school setting. Data were collected from administrators working within the public-school sector, not including charter high schools or special schools. Through purposive sampling, 69 high school administrators made up the sample for this study. Pseudonyms used in this study for the two school districts are LUSD 1 and LUSD 2.

LUSD 1 is a large urban school district located in Central Florida. As the 10th largest school district in the United States and the fourth largest school district in Florida at the time of the study, LUSD 1 served approximately 203,000 students from diverse racial and ethnic backgrounds. Students within the district represented 200 countries and spoke 167 languages. As the second largest employer in Central Florida, LUSD 1 had approximately 24,000 employees, 548 of whom were school level administrators.

At the time of the study, LUSD 2 was also a large urban school district and located in south Florida. As the 11th largest school district in the United States and the fifth largest school district in Florida, LUSD 2 served approximately 189,000 students from various racial and ethnic backgrounds and employed approximately 21,000 individuals. Students in the school district represented 198 countries and spoke 150 languages and dialects.

Instrumentation

The Principal Actions Survey (PAS), developed by La Cava (2009), was used to measure the self-perceived leadership behaviors of high school administrators. The PAS consisted of 22 items. Items contained within the survey were specifically related to the following leadership factors: (a) knowledge of curriculum, instruction, and assessment; (b) optimizer; (c) intellectual stimulation; (d) change agent; (e) monitoring/evaluating; (f) flexibility; and (g) ideals and beliefs. These factors are

the seven second-order change leadership behaviors of the balanced leadership framework of responsibilities (Marzano et al., 2005). Initial survey items allowed respondents to select demographic data and educational background. The PAS, consisting of 22 statements specific to second-order change leadership behaviors and utilized a 5-point Likert-type scale, giving respondents the option to select: strongly agree, agree, neither agree or disagree, disagree, or strongly disagree. Two items on the PAS allowed respondents to share specific leadership experiences regarding leadership behaviors and challenges through open-ended responses.

Data Analysis

A mixed-methods research design was used to collect data and investigate a possible relationship between second-order change leadership behaviors and student achievement. Inferential and descriptive statistics were utilized to analyze quantitative data. After the survey closed, data were downloaded to an external spreadsheet. Data analysis was completed to determine the relationship between second-order change leadership behaviors and student achievement. A correlation was utilized to investigate if a relationship existed between the dependent variable of second-order change leadership behaviors and the independent variable of student achievement.

The qualitative analysis was completed using thematic analysis which calls for examining common themes among administrator leadership behaviors (Lunenburg & Irby, 2008). Thematic analysis permits the identification, analysis, and reporting of patterns within data (Braun & Clark, 2006). According to Braun and Clark, a theme captures something important about the data in relation to the research question and represents some level of patterned response or meaning within the data set (2006, p. 82).

Findings

Research Question 1

What are the overall Principal Actions Survey (PAS) scores for high school administrators and the seven leadership factors, determined by Marzano, Waters, & McNulty (2005)?

The means of the self-perceived leadership behaviors of administrators were determined applying administrators' PAS results. Specific questions were aligned to each of the seven leadership factors. After survey completion, the mean of the sum and the means were calculated for each individual leadership factor. Table 1 displays the PAS results.

Table 1

Principal Actions Survey Sums, Means, and Standard Deviations by Leadership Factor (N=69)

	Factor Items (Item Number)	Mean of Sum*	Mean	Standard Deviation
Monitoring/ Evaluating	16, 19	9.04	4.72	0.9
Change Agent	2, 3, 9, 13	18.54	4.63	1.41
Ideals/ Beliefs	14, 15, 18	13.83	4.6	1.14
Intellectual Stimulation	7, 12, 22	13.61	4.52	1.32
Optimizer	4, 6, 8, 20	17.68	4.38	1.81
Knowledge of Curriculum, Instruction, and Assessment	10, 17, 21	13.26	4.38	1.36
Flexibility	5, 11	8.33	4	1.59

Research Question 2

> *To what extent, if any, does a relationship exist between the scores of high school principals on the Principal Actions Survey (PAS) and the change in student achievement from the school year 2016 and 2017? (Algebra 1 End-of-Course Exam and FSA English Language Arts/Reading)*

Research question 2 was addressed through the use of a Pearson r correlation to investigate the possibility of a relationship between scores of high school principals on the PAS and the change in student achievement on the Florida Standards Assessment (FSA) English Language Arts/ Reading component and the Algebra 1 End-of-Course (EOC) examination for the years 2016 and 2017. For this analysis, the sample consisted of 14 high school principals. Administrators who were not high school principals were not included because it would represent an inaccurate sample in relation to the research question as there would be duplications within a high school. Though a total of 22 principals completed the PAS, only 14 principals reported their work location so that the achievement data could be identified and matched. These 14 constituted 64% of the entire sample of principals participating in the study. For the purpose of analysis, the researcher put in missing values into the Statistical Package for Social Sciences (SPSS) platform, and this yielded a total of 14 useable responses on

the PAS.

Principals were ranked from highest to lowest based on their PAS score. Additionally, each principal was placed into one of three tiered groups based on their PAS score. The collective means for each tier were calculated for further analysis. Tier One, consisting of principals 4, 7, 18, 34, and 36, obtained a mean value of 4.78. Tier Two, consisting of principals 3, 11, 14, 16, and 39, obtained a mean value of 4.51. Tier Three, consisting of principals 12, 13, 15, and 17 received a mean value of 4.06. The means presented for each tier were aligned with the ranking order based on the PAS scores for each respondent.

Principal demographic data were gathered for the purpose of analysis. The two highest ranking principals by PAS score had at least 10 or more years of administrative experience. The highest-ranking principal by total PAS score was a white male and one of three principals reported that they worked at a school with a poverty level of 80-100%. The four highest ranking principals, by total PAS score held a master's degree and not a higher degree. The lowest ranking principal, by total PAS score and mean, was also a white male with 10 or more years of administrative experience. Similarly, this respondent also held a master's degree.

To conduct further analysis, the total score for each of the 14 principals by leadership factor was calculated. To calculate the total score for each principal by leadership factor, the sum of items factored into each leadership factor was calculated. Through the utilization of the 5-point Likert scale, each principal received an individual score per leadership factor.

Changes in student achievement on the FSA ELA/Reading component and the Algebra 1 EOC examination were calculated by subtracting the overall 2016 scores on both assessments from the 2017 overall scores on both assessments. Achievement refers to any student that received a Level 3 or higher on 5-point scale. Changes in achievement data were calculated for the schools identified by principals as their current work locations ($n = 14$). The changes in student achievement data on the FSA ELA / Reading Component and the Algebra 1 EOC from school year 2015-2016 to 2016 and 2017 are presented in Tables 2 and 3.

Table 2

Difference in Overall Florida Standards Assessment English Language Arts/Reading Achievement by Principal (n=14)

	Overall Achievement			
Principal	**Total PAS Score (Sum)**	**2017 (%)**	**Mean**	**Standard Deviation**
18	106	39	33	6
11	101	25	21	4
3	101	65	62	3
17	90	56	53	3
39	103	46	43	3
7	103	49	49	0
12	90	63	63	0
34	109	30	31	-1
14	100	43	46	-3
15	85	61	64	-3
16	91	69	72	-3
36	103	40	43	-3
4	105	32	36	-4
13	88	25	29	-4

Note: Maximum PAS Score=110

Table 3

Percentage Difference in Overall Algebra 1 End of Course Examination Achievement by Principal (n=14)

		Overall Achievement		
Principal	**Total PAS Score**	**2017 (%)**	**2016 (%)**	**Percentage Difference**
36	103	37	28	9
39	103	43	36	7
11	101	18	17	1
12	90	50	51	-1
4	105	19	23	-4
13	88	17	21	-4
3	101	46	51	-5
17	90	36	41	-5
34	109	31	37	-6
14	100	20	27	-7
16	91	53	60	-7
18	106	18	25	-7
7	103	25	35	-10
15	85	39	51	-12

Note: Maximum PAS Score=110

A Pearson r correlation was utilized to investigate the possibility of a relationship between PAS scores and the changes in student achievement on the FSA ELA/Reading Component and the Algebra 1 EOC examination for the school years 2017 and 2016. The Pearson r correlation results determined that there was a statistically significant correlation among principal mean scores on the PAS and changes in student achievement on the FSA ELA/Reading component ($r = -.35$, $n = 14$, $p = .219$) and the Algebra 1 EOC ($r = -.187$, $n = 14$, $p = .182$). Table 26 presents the results of the statistical analysis for principal mean scores on the PAS and differences in student achievement level on the FSA ELA/Reading Component and the Algebra 1 EOC.

Table 4

Pearson r Correlation Between Principal Actions Survey (PAS) Scores, FSA ELA/Reading Component, and Algebra 1 End of Course (EOC) Results (n=14)

Correlation	PAS Mean	FSA ELA/Reading	Algebra 1 EOC
Pearson Correlation	1	-.350	-.187
Sig. (2-tailed)		.219	.522
N	14	14	14
Pearson Correlation	-.350	1	.378
Sig. (2-tailed)	.219	0	.182
N	14	14	14
Pearson Correlation	-.187	.378	1
Sig. (2-tailed)	.522	.182	0
N	14	14	14

Research Question 3

How do reported second-order change leadership behaviors of high school principals compare with the findings of elementary school principals reported by La Cava (2009) and Kearney (2012) on the Principal Actions Survey (PAS)?

Research Question 3 was answered by using a one-sample t-test to compare the overall PAS means of elementary principals in schools with more than 60% poverty, as determined by La Cava (2009), and also using a one-sample t-test to compare the PAS scores of elementary principals in schools with less than 60% poverty, as determined by Kearney (2012), to the current study.

In order to find the overall mean score of the findings presented by La Cava (2009), the researcher used the total scores of responses presented by La Cava (2009) divided by the total number of PAS items. The result of the computation was a mean value of 4.63 for principals in schools with 60% or more poverty. The researcher ran a one-sample t-test to compare the findings to the current research. According to the analysis, there was no statistical difference between scores of high school principals (M=4.48, SD=.34) and elementary principals in schools with more than 60% poverty $t(13) = -1.68$, $p = .12$. However, there is a slight difference in the scores of elementary and high school principals' means on the PAS of -.15.

Table 5

Results of One-sample t-test: Elementary School Principals With 60% or More Poverty and High School Principals

t	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
				Lower	Upper
-1.68	13	.12	-.15	-.35	.04

To compare the overall PAS score of elementary principals studied by Kearney (2012) to the current study, the scores were recalculated from a 4-point Likert type scale without a neutral response option to a 5-point Likert type scale with a neutral response type. After recalculation, the results of the computation yielded a mean of 4.48 for elementary principals at a school with a less than 60% poverty level. The researcher ran a one-sample t-test to compare the findings to those in the current research. According to the analysis, there was no statistically significant difference between the mean scores of high school principals (M = 4.48) and elementary principals (M = 4.48) in schools with less than 60% poverty t(13)=-.031, p = .98. However, there is a slight difference among elementary school principals in schools with a poverty level of less than 60% and high school principals of .003.

Table 5

Results of One-Sample T-test for Elementary School Principals with Less Than 60% Poverty and High School Principals

T	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
				Lower	Upper
-.031	13	.95	.003	-.20	.19

Research Question 4

According to high school administrators, what leadership behaviors have the most influence on changes in academic student achievement?

A total of 50 responses from a total sample of 69 administrators were included in the thematic analysis of survey item 6, and three promi-

nent themes emerged related to administrators' actions and behaviors to make changes at their schools. To be a theme, there had to be at least 10 administrators who responded to this item. The three themes identified in the analysis related to survey item 6 were: (a) professional learning, (b) professional learning communities (PLCs), and (c) monitoring. Tables 36, 37, and 38 contain the administrator responses identified in the analysis for the three identified themes.

Professional Learning

Professional learning was cited by 17 of the high school administrators in their open-ended responses on the PAS. Responses were specific to job-embedded professional learning used for the purpose of increasing expertise of instructional practice to increase student achievement and book studies to promote change. In discussing job-embedded professional learning, AP1 wrote, "Planned and organized professional development to assist teachers in expanding their knowledge and expertise in instructional strategies." AP 18 wrote, "I have been largely responsible for planning and implementing professional development training sessions, targeting research-based practices, and standards-based instruction." AP 24 wrote, "…offered opportunities for teachers to shadow one another and provide mentoring…." In discussing professional learning using book studies, AP2 wrote, "We conducted book studies on the growth mindset and blended learning to help build teacher capacity." Additionally, AP 24 wrote, "I have led book studies…for new teachers."

Professional Learning Communities

Professional learning communities (PLCs) were mentioned by15 high school administrators. Responses were specific to the implementation, structures for analyzing student data outcomes, and monitoring for effectiveness of structures through PLCs. In discussing the implementation of PLCs, one respondent (P9) wrote, "Implemented common planning times for PLCs and set up structures for more efficient operations." In discussing the use of PLCs to analyze data outcomes, another respondent (AP5) wrote, "I have assisted in creating high functioning PLC teams that use data to drive their instruction…" AP 11 wrote, "Teachers have been taught data analysis through their PLC in order to drive instruction based on their student data." In discussing monitoring for the effectiveness of PLCs, AP16 wrote, "Attending regular PLC meetings to observe the process of collaboration among teachers to see how it will affect instruction." AP20 observed, "Being more hands-on in PLCs and guiding planning and instructional strategies and monitoring for consistent implementation in the classroom to ensure that standards and skills are being taught and understood at the appropriate level of rigor." Respondents reported the

utilization of PLCs as a means of analyzing data and incorporating strategies for the implementation of standards-based instruction and instructional strategies.

Monitoring and Evaluating

Eleven high school administrators indicated their actions and behaviors in monitoring and evaluating resulted in changes to practice at their schools. Responses were specific to monitoring the effectiveness of instructional strategies, transfer of knowledge, and student data outcomes. In discussing the effectiveness of instructional strategies, AP18 wrote, "I always provide very actionable feedback to teachers through the clinical observation cycle, coaching observations, walk-throughs, informal observations, and formal observations." AP21 wrote, "…monitor teacher skill acquisition for new teachers." In discussing data outcomes, A6 wrote that administrators incorporated "structured planning and data analysis with a remediation plan built from the results." AP29 wrote, "I monitor and identify data trends to drive rigorous instruction."

Creating a Culture of Change

Twenty-two respondents provided responses related to creating a culture of change, making it the prominent theme in the thematic analysis of survey item 7. The subthemes identified after analysis of responses were resistance, growth mindset, and changes in traditional practices. In discussing resistance, AP5 wrote, "Teachers are resistant to change due to being uncomfortable with a new approach to teaching." AP34 stated "The greatest challenge I encounter is requesting staff to change instructional practices that have been in place for a long time." In discussing implementing a growth mindset, AP31 wrote, "Challenges are encountered by those with fixed mindsets." P18 wrote, "The greatest challenge is shifting the mindset of teachers who strongly believe that change is not needed." In discussing change related to tradition, AP19 wrote, "The school I work at is extremely entrenched in tradition which is a good thing generally. The downside to the history of tradition is that it can sometimes be difficult to make changes."

Discussion

Systems of accountability within the educational sector require school-based administrators to deviate from traditional norms to impact student achievement through various approaches to strategic and sustainable instructional leadership. Specifically, second-order change encourages the implementation of seven leadership factors to increase student achievement outcomes. Three prior studies (LaCava, 2009; Taylor, 2012a;

Kearney, 2012), conducted in elementary schools, confirmed the ways in which second-order change increases student achievement and the role of each leadership factor in that process. This study investigated the relationship between second-order change leadership behaviors of high school administrators and student achievement outcomes. Though the sample of administrators in the aforementioned studies were elementary school principals, current findings were in alignment with incorporation of the seven leadership factors of high school administrators.

It is important to point out the similarities and differences between the principal and assistant principal study groups. Specific to this study, scores of the principal group and the assistant principal group on the Principal Actions Survey varied depending upon the leadership factor. Principals scored higher overall means than assistant principals in the areas of knowledge of curriculum, instruction, and assessment, optimizer, change gent, and monitoring/evaluation. However, assistant principals scored higher overall means in the areas of intellectual stimulation, flexibility, and ideals/ beliefs. The greatest difference among mean scores (-4.53) was the leadership factor optimizer which is "being the driving force behind the new innovation and fostering the belief that it can produce exceptional results if members of that staff are willing to apply themselves." (Marzano, Waters, & McNulty, 2005, p. 72). Based on each leadership factor, such change may be due, in part, to the distinct roles and responsibilities of principals and assistant principals. Flexibility had the lowest mean score between both groups. It may be concluded that accountability, such as state and district mandates, may hinder flexibility.

The researcher set out to determine the correlation between principals' scores on the PAS and student achievement. The analysis indicated that there was a statistically significant difference between principals' scores on the PAS and student achievement, as evidenced by the Florida Standards Assessment ELA/Reading component (r = -.35, n = 14, p = .219) and the Algebra 1 EOC (r = -.19, n = 14, p = .522). Principals were placed into three tiers in order of overall PAS score. Although Tier One principals (n = 5) reported the highest overall scores on the PAS, tier two principals (n = 5) had the highest collective gains in student achievement on the FSA ELA/Reading component and the Algebra 1 EOC. Tier Three principals decreased in student achievement outcomes on the Algebra 1 EOC, while one principal in this tier had the greatest decline (-12) in student achievement on the FSA ELA/Reading component. Changes in student achievement were not necessarily contingent upon years of administrative experience, age, or the earned degree.

Four action themes emerged as a result of qualitative analysis: professional learning, professional learning communities, monitoring/ evaluating, and creating a culture a change. As such, the developed action themes may be important in implementing school turnaround efforts. The researcher determined the intersectionality among the developed action

themes and the seven leadership factors. The analysis of themes across the seven leadership factors presents the importance of knowledge of curriculum, instruction, and assessment, alignment of standards, curriculum and instruction, and collaboration manifested as leadership behaviors were themes that participants stated contributed to the successful implementation of second-order change. While the thematic analysis presented professional learning as a contributing factor in leading change, it was only evident for the leadership factors of knowledge of curriculum, instruction, and assessment and intellectual stimulation.

Conclusion

Instructional leadership serves as one of the factors that aids in the success of school leadership and the improved student achievement in the current era of accountability. Second-order change, as outlined by Marzano, et al. (2005), encompasses the seven leadership factors that contribute to effective instructional leadership practices. However, as the roles and demands of school-based administrators change, it is important to place emphasis on and strategically take approaches to implement and sustain the following: professional learning opportunities, professional learning communities, monitoring and evaluating, and creating a culture of change.

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