

## **The Influence of Teacher Leadership on Elementary Students in an Urban Professional Development School (PDS)**

Rebecca West Burns, University of South Florida

Samantha Haraf, University of South Florida

Francesca Perrone-Britt, Hillsborough County Public Schools

Megan Porter, Hillsborough County Public Schools

Amanda Bellas, Hillsborough County Public Schools

Woodland Johnson, Hillsborough County Public Schools

LaTiecea Hailey-Brown, Hillsborough County Public Schools

**Abstract:** The connections between teacher leadership and student learning have not been widely explored in the literature. Responding to this absence, the purpose of this longitudinal collaborative inquiry was to understand the interaction and influence between and among teacher leaders and students within an urban, turnaround elementary professional development school (PDS). Our inquiry examined data from a five-year period to explore how teacher leaders are influencing students in terms of opportunities for student leadership, students' perceptions of the school, and student achievement as measured by state standardized test scores. The study revealed that since the launch of a teacher leader academy at the school in 2013, student academic achievement has improved, students' perceptions of the school climate and their teachers have improved, and student leadership is occurring in a variety of ways throughout the school.

**KEYWORDS:** *collaborative inquiry, professional development schools (PDS), student leadership, teacher education, teacher leadership*

### **NAPDS NINE ESSENTIALS ADDRESSED:**

1. A comprehensive mission that is broader in its outreach and scope than the mission of any partner and that furthers the education profession and its responsibility to advance equity within schools and, by potential extension, the broader community
4. A shared commitment to innovative and reflective practice by all participants
6. An articulation agreement developed by the respective participants delineating the roles and responsibilities of all involved
7. A structure that allows all participants a forum for ongoing governance, reflection, and collaboration;
8. Work by college/university faculty and P-12 faculty in formal roles across institutional settings

Teacher leadership is the ability of teachers to positively influence change within their peers' practice to improve student learning (York-Barr & Duke, 2004), and it is receiving heightened attention nationally. The terms teacher leader and teacher leadership are not synonymous; one is a function (teacher leadership) and the other a role (teacher leader) (Burns, 2018). The seminal work of York-Barr and Duke (2004), who reviewed the empirical literature on teacher leadership, found that research focused on characteristics and practices of teacher leaders as well as on challenges that teacher leaders encountered within their schools. Building upon this work, Wenner and Campbell (2017) found that more recent empirical literature on teacher leadership focused on the roles of teacher leaders outside of the classroom. They also identified several key factors that could empower or inhibit teacher leader development. Both of these literature reviews agreed that teacher leadership remains uncommonly defined and not grounded theoretically in research studies.

While scholars have sought to understand teacher leadership broadly in schools, several scholars are exploring teacher leadership in the specific context of professional development schools (PDSs). In her edited book, Hunzicker (2018) compiled descriptions and studies of teacher leadership in PDSs from across the United States. Authors within her text address connections between teacher leadership and student learning, structures, and cultures that promote teacher leadership, and the preparation and development of teacher leadership in PDS contexts. In addition, other scholars have recognized that exemplary PDS contexts can be sites for cultivating teacher leadership (Nolan et al., 2009). What these scholars share in common is the recognition that PDSs, as robust school-university partnerships, are excellent hybrid spaces for cultivating teacher leadership and for developing teacher leaders, but much less is known about teacher leadership and its influence on students, student leadership, and student learning.

In this article, we explore the connection between teacher leadership and student learning in an urban turnaround elementary PDS called Hope Elementary, hereafter referred to as Hope. A group of university research faculty, doctoral students, teacher leaders, and school administrators engaged in collaborative inquiry to address the following overarching research question:

- How are teacher leaders influencing K-5 students at Hope?

Our sub-questions included:

- What opportunities for student leadership are present at Hope?
- How do teacher leaders interact with students to support those opportunities?
- What are students' perceptions of the school culture and climate and of their teachers specifically?
- How have those perceptions changed over time since the inception of teacher leadership at Hope?
- How have students performed on state standardized tests since the inception of teacher leadership at Hope?

### **Relevant Literature**

In order to explore the connection between teacher leadership and student learning in our PDS, we drew from the empirical literature between the intersecting topics of student leadership and academic success, teacher leadership and student learning, school culture and student learning, and PDSs and student learning.

### **Student Leadership and Academic Success**

Student connectedness is an important predictor of academic success (Libbey, 2004; Lizzio, Dempster, & Neumann, 2011). Both formal and informal student leadership opportunities offer possibilities for strengthening student connectedness with school, whereby students have various ways to be engaged as leaders in both academic and extracurricular activities (Lizzio et al., 2011). Student leadership also presents opportunities for enhancing student voice and for empowering students within their school context, which have been found to be beneficial both to students themselves and to a school and its community (McQuillan, 2005; Quinn & Owen, 2016). By participating in student leadership opportunities, students have been found to “develop skills of communication, negotiation, active listening, facilitation of discussions and delegation of responsibilities to accomplish their goals” (Quinn & Owen, 2016, p. 67).

### **Teacher Leadership and Student Learning**

In a recent review of the theoretical and empirical basis of teacher leadership, Wenner and Campbell (2017) found no research examining the impact of teacher leadership on student learning, despite a call for this need over a decade ago by York-Barr and Duke (2004). They problematize this omission, pointing out that a commitment to student learning is often embedded within definitions of teacher leadership, and that the current climate of accountability makes it even more necessary and relevant. Wenner and Campbell (2017) appealed to researchers to explore connections between teacher leadership and student learning in order to address this gap in the literature.

### **School Climate and Student Learning**

Student academic growth and achievement have been found to be linked to a positive school and classroom climate (Thapa, Cohen, Guffey, & Higgins-D'Alessandro, 2013). Thapa et al. (2013) demonstrate that a wide body of research points to the overlap between a positive school climate and various academic factors, including higher graduation rates, growth in academic achievement, and increases in students' school connectedness and engagement. Additionally, positive student-teacher relationships have been found to be connected to student academic achievement. For example, Hamre and Pianta (2001) found ‘relational negativity’ in kindergarten predicted students' later academic outcomes. Similarly, Reyes, Bracket, Rivers, White, and Salovey (2012) found both direct and indirect links between student academic achievement and the classroom emotional climate, including the quality of interactions between students and teachers.

### **Professional Development Schools and Student Learning**

Since the conceptualization of PDSs in the mid-1980s, scholars, practitioners, and policymakers alike have wondered what the connection between PDSs and student learning would be. After all, the intention of PDSs was to be a vehicle for simultaneous renewal - a grassroots movement where schools and universities would collaborate to transform schools and universities

together (Goodlad, 1994; Rutter, 2011). Many scholars have attempted to explore the impact of PDSs on student learning, but have been unsuccessful. In fact, in 2011, Jane Neapolitan published an edited yearbook, *Taking Stock of Professional Development Schools: What's Needed Now*, to tackle the idea of impact. Scholars from across the United States searched the empirical literature seeking to find the impact of PDS on teacher professional learning, student achievement, and more, but the empirical evidence connecting PDSs to student learning was sparse and inconclusive. Researchers today continue the quest to address this highly sought-after correlation of PDS impact on student learning.

### **Theoretical Frameworks**

Perhaps one of the reasons that the question of PDS impact on student learning has escaped researchers is a flaw in the conceptualization of what a PDS is. For the purposes of our study, we draw upon hybridity theory and complexity theory to reframe research in and on PDSs and PDSs themselves.

#### **PDSs as Hybrid, Third Spaces**

Hybridity theory suggests that when two binaries interact, they negotiate and renegotiate their identities (Bhabha, 1994). Over time, this negotiation and renegotiation present opportunities for knowledge generation and innovation, thus creating a new, third space from the original binaries (Soja, 1996). When applying that idea to PDSs, they exist as robust communities created through the negotiation and renegotiation of two binaries, schools and universities. Thus, PDSs are a unique third space where the culture of schools and the culture of universities collide, clash, and co-mingle to foster the theory and practice connections, innovative thinking, knowledge generation, and educational renewal (Cuenca, Schmeichel, Butler, Dinkelman, & Nichols, 2011; Zeichner, 2010).

#### **PDSs as Complex Entities**

PDSs have historically been criticized for their lack of fidelity (Teitel, 1998). Thus, the National Association for Professional Development Schools (NAPDS) (2008) created the PDS Nine Essentials to distinguish PDSs from other school-university partnerships. Likewise, *School-University Partnerships*, the journal of the NAPDS, recently dedicated an entire issue to address the concept of PDS (Zenkov, Parker, Parsons, Bruyning, Clark, & Daoud, 2016). Within that issue, Dresden, Blankenship, Capuozzo, Nealy, and Tavernier (2016) drew upon Deleuze and Guattari's cultural historical activity theory (1987) to argue that PDS work is complex, "Each PDS is a unique assemblage of specific people, places, buildings, policies, geographies, furniture, attitudes, and climate" (p. 73).

Other scholars have applied such theories to studying novice teachers and teaching. Strom (2015) also used Deleuze and Guattari's theory and applied their metaphor of a rhizome to her study of a first-year teacher, arguing that this rhizomatic theoretical framework allowed her to resist reductionist notions and instead embrace the complexity of teaching as non-linear, non-hierarchical interactions that shaped the research participant and her teaching as she shaped them.

Davis and Sumara (2006) have also advocated for the use of complexity thinking in educational research. They contend that complex systems have a fractal geometrical structure, in essence, a structure that repeats itself, but complex systems' personalities or characters are unique, shaping and being shaped by the individuals and socio, cultural, and political contexts in which they are situated. Like these other scholars, Davis and Sumara (2006) strongly advise researchers to use non-linear thinking to address complex educational phenomena, like PDSs.

When PDSs themselves, and not just the work of PDSs, are reframed using the lens of complexity thinking, it becomes easier to see why linear, cause and effect correlations desired in impact research have been scant at best in the PDS literature. Perhaps we are asking the wrong questions and need to reframe the conversation and the research to embrace complexity (Dresden et al., 2016). Thus, our longitudinal collaborative inquiry does not seek to understand a direct causal link between teacher leadership and student learning. Rather, we aim to understand the interaction and influence between and among teacher leaders and students within our urban, turnaround elementary PDS.

### **Context**

Hope Elementary (a pseudonym) is a PDS between the Colossal School District (a pseudonym) and the Urban Research University (a pseudonym) in the southeastern United States.

#### **Hope Elementary**

Hope is one of the largest K-5 elementary schools in the Colossal School District with around 850 students on average. Labeled as a turnaround school from the state department of education, Hope faces many challenges similar to other urban, high-poverty, low-performing schools that serve children and families living in poverty. Ten percent of the children are homeless, and even more are shelter insecure. A majority of the students are food insecure. In fact, almost all (97%) students receive free and reduced lunch. Many families are migrant workers or undocumented immigrants, which means that many parents regularly move to seek work to support their families, resulting in a high transience rate; about 50% of the student body turns over each year. The student population is predominantly composed of students of color and, more specifically, a Latinx population (over 70%). There are over 100 staff members. Approximately 60 are considered instructional staff. Hope has one principal and two assistant principals, and the school is the only PDS among six partnership schools with the Urban Research University's urban residency teacher preparation program. Being a PDS means that the instructional staff at Hope agrees to mentor 12 to 18 teacher candidates each year for a two-year period. Teacher candidates, called residents, accumulate almost 2,000 clinical hours by graduation, so having teacher leaders who can serve as high-quality mentor teachers to residents is imperative.

#### **Colossal School District**

Colossal School District is in the top ten largest school districts in the United States. The district is comprised of over 250 K-12 instructional sites. Approximately 150 of them are

elementary schools. There are over 30,000 employees and almost 200,000 K-12 students enrolled in any given year.

### **The Urban Research University**

The Urban Research University (URU) is a large urban research-intensive university in the southeastern United States with over 45,000 students. Within the university, the College of Education has 115 full-time faculty, over 75 degree programs, and more than 2,500 students. The university's as well as the college's strategic plan includes a focus on school-university partnerships and community engagement.

### **Teacher Leadership at Hope**

In the fall of 2013, Hope's principal at the time and a URU faculty member collaborated to develop the Hope Teacher Leader Academy, an innovative, clinically-centered program for developing teacher leaders to support the renewal of Hope. The goal of the academy is to develop teacher leaders who can: (1) systemically study their own practice by developing critical data literacy skills, (2) effectively coach teacher candidates and in-service teachers to improve student achievement, (3) skillfully facilitate professional development to enhance instructional practice, and (4) intentionally develop a lens of equity to recognize, respond to, and redress educational inequities to ensure that all students at Hope have equal access and opportunity to education.

As a part of the initiative, teacher leaders earn advanced credentials through courses co-taught by university faculty, doctoral students, and school representatives onsite at the school. The issues and challenges of leading at Hope become the curriculum for graduate coursework. Today, teacher leaders collaboratively design and facilitate the professional learning of the rest of the staff, and their ability to successfully influence their peers' practice to improve student achievement has become their performance assessments for the graduate coursework. In this way, professional learning at Hope is data driven, responsive, and differentiated to meet the needs of the entire staff in ways that recognize and value teacher expertise.

### **The PDS Structure**

The design of the PDS among Hope, URU, and Colossal School District is very sophisticated. It has a six-building block structure that aligns with the NAPDS Nine Essentials (NAPDS, 2008) to foster simultaneous renewal and address the professional learning for all stakeholders: (1) Teacher Candidate Learning, (2) Teacher Learning, (3) Teacher Leader Learning, (4) University Teacher Educator Learning, (5) School Administrator Learning, and (6) Student Learning. For the purposes of this article, we will be targeting building block three, Teacher Leader Learning, to understand the influence teacher leadership has had on K-5 students over a period of five years. Hope has won several national and state awards for school-university collaboration and its achievements in teacher leadership development, school culture and climate transformation, differentiated professional learning, and student achievement.



## Methodology

In this study, we used collaborative inquiry as our methodological approach to engage a voluntary group of school-based and university-based faculty in studying teacher leadership at Hope. Collaborative inquiry is situated within practice-based research. It is a form of practitioner research and is defined as the systematic, intentional study by educators of their own practice (see Cochran-Smith & Lytle, 1992; 2009). During the last few decades, the area of practitioner research has enjoyed heightened attention as a powerful tool for teacher candidate, in-service teacher, and principal learning (e.g., Cochran-Smith & Lytle, 1993, 2009; Dana & Yendol-Hoppey, 2014; Price & Valli, 2005). This longitudinal collaborative inquiry examined data from a five-year period to explore how teacher leaders are influencing students in terms of opportunities for student leadership, students' perceptions of the school, and student achievement as measured by state standardized test scores.

## Methods

Members of our collaborative inquiry team consisted of a research faculty member and professor-in-residence, a doctoral student, three teacher leaders, and two administrators. To understand our ability to influence student learning through teacher leadership at Hope, we drew from a variety of data sources. To analyze the data, we used an ongoing, recursive process that we describe through three phases of analysis.

### Data Collection

We collected four types of data: (1) discussion notes, (2) artifacts, (3) surveys, and (4) student achievement data from state standardized tests from 2013-2018.

**Discussion notes.** Members of the collaborative inquiry team discussed instances that they saw of student leadership and teacher leaders supporting students in the school to generate a list of activities, both formal and informal, of teacher leaders positively influencing students.

**Artifacts.** To capture student leadership opportunities, we examined the school calendar. We also collected programs, flyers, agendas, etc. where students had opportunities to enact leadership. Using this information, we created a timeline of student leadership opportunities over the past five years.

**Surveys.** There were two kinds of surveys. The first survey, called the School Climate and Perception (SCIP) survey, is an anonymous survey used annually across the district to understand student perceptions of school and related factors. The Student SCIP survey is divided into five categories with several indicators in each category. The five categories include: My School, My Teachers, My Principal, My Home, and My Experience. Under each of these categories, students are asked to what extent they agree with various statements, such as, "My teachers make sure our class stays focused on learning." For the purposes of this study, we isolated the SCIP survey indicators related to teachers, leadership, and student experiences, and we used those responses as data. The SCIP student survey was significantly changed during the 2015 school year, resulting in a new format and almost all new indicators; therefore, the survey from previous years was not

included in our data analysis because the significance of the differences made it impossible to compare.

The second survey was a short, five open-ended question response to ascertain teacher leaders' perceptions about their opportunities and experiences with supporting students in student leadership. The survey was sent to twenty-eight people (teacher leaders and school administrators). Eight people responded. Questions included: (1) How do teacher leaders positively influence students at Hope? (2) What are some opportunities for student leadership at Hope? (3) How do teacher leaders encourage/support student leadership at Hope? (4) Give a concrete example of a time when you (when you saw a fellow teacher leader) support/encourage students to be leaders at Hope? And (5) Is there anything else that you would like to share that we didn't think to ask?

**Student achievement data.** Finally, we examined student achievement scores, not disaggregated by student, in math, literacy, and science as well as the school's annual grade as issued from the state department of education from 2013 to 2018. We analyzed data from the annual state standardized assessment to understand student achievement. The annual state standardized assessment is given to elementary students in grades 3 through 5 to assess their math and literacy achievement. The science standardized assessment is only taken by students in grade 5. Students' level of proficiency is reported using a scale score ranging from level 1 (inadequate) to level 5 (mastery). The state considers level 3 or above to be a passing score. Therefore, we identified the total percentage of students achieving a level 3 or above in each of the subject areas (math, literacy, and science) to understand student academic achievement over time. Importantly, the state standardized exam was significantly changed in 2015 in order to align with the adoption of new standards. Because of this, achievement data prior to 2015 is not necessarily equally comparable to data from 2015 and beyond.

## Data Analysis

Our data analysis occurred in three phases: (1) Coding qualitative data, (2) Analyzing survey data, and (3) Examining the "Big Picture."

**Phase 1: Coding qualitative data.** For qualitative data, like the open-ended survey questions, discussion notes, and artifacts, we used coding and categorizing to make sense of the data. Coding is the process of assigning a word or phrase to capture the essence of a datum (Saldaña, 2009). After the data were coded by hand, we grouped the data into categories. Then, we used these categories for analysis in Phase 3 when we combined qualitative and quantitative data.

**Phase 2: Analyzing SCIP survey data.** For the student SCIP survey, which included only Likert scale responses, we examined the percentage of positive responses for particular indicators connected to teachers, leadership and student experiences. We placed these percentages into tables for each of the years analyzed. Then, we compared the percentage of positive responses for identical indicators across the years to examine change over time.

**Phase 3: The big picture.** Our final phase of analysis included combining the analyzed qualitative and quantitative data from Phases One and Two to develop a holistic picture of the influence of teacher leadership on K-5 students. We looked across both data sources to develop themes, which Saldaña (2009) defines as, "...an *outcome* of coding, categorization, and analytic reflection, not something that is, in itself, coded" (p. 13).



## Findings

We have organized our findings based on the sub research questions to address the opportunities for student leadership and the influence of teacher leadership on those opportunities, students' perceptions of the school climate and how those perceptions have changed over time, and how students performed on state standardized tests since the inception of a long-term teacher leadership initiative at Hope.

### **Research Question 1: What opportunities for student leadership are present at Hope?**

One of the main opportunities for student leadership is the school government initiative called CASA. Although CASA stands for Character. Attendance. Service. Academics, *casa* also means "home" in Spanish. With a majority of the student population being Latinx (over 70%), Hope is really like their second home. Students earn points, which can never be taken away, for exhibiting behaviors that exemplify character. What defines character is identified in the school's 22 Essentials (a list of twenty-two behaviors that should be seen and heard in the school). According to a 12-page school document that describes the CASA program, the 22 Essentials are the expectations that are "...not only preparing students for Hope but are preparing them for LIFE." Students also earn points for coming to school and being on time. The school has historically struggled with attendance, which is connected to the high transience rate. Almost all students walk, so getting students to school on time and safely across a four-lane major road is a persistent challenge.

The CASA program, among other initiatives, has helped to improve the attendance rate. All students and teachers are mixed and divided into five houses, each which has a color and animal assigned to it: (1) The House of Determination (Green Raven), (2) The House of Respect (Yellow Eagle), (3) The House of Loyalty (Black Wolf), (4) The House of Courage (Blue Lion), and (5) The House of Respect (Red Badger). Each house has a Head of House (President), Vice President, and Historian. To be selected into one of these roles is a very rigorous, and often nerve-racking, process that involves applying, running for the position, and giving a speech to the entire house. These roles comprise the House Council and student leaders lead monthly House meetings, serve as hosts to visitors, lead school tours, and serve as peer mediators. These are highly sought after roles for student leadership.

In addition to the CASA program, student leadership is encouraged and supported in a variety of ways at Hope. Leadership opportunities and experiences for students exist both inside and outside the classroom, and in both formal and informal ways. In their classrooms, many teachers create and implement different types of "classroom jobs" for students, such as table team leaders, conversation facilitators, homework collectors, etc. These positions offer students opportunities to begin understanding leadership and responsibility in various formats within the safe spaces of their classrooms.

Other initiatives offer the potential for students to begin exhibiting leadership outside of the classroom. For example, fourth and fifth-grade students at Hope engage in an annual Tropicana Public Speaking Contest. Teachers support students as they develop speeches and give them in front of their class; then, top students are selected to engage in the school-wide contest. Winners of this contest go on to compete in a district-level competition. Through this contest, students learn

to write speeches on topics that matter to them and to develop their public speaking abilities. Additional ongoing student leadership opportunities include National Elementary Honor Society membership, hosting the school's talent show, working as a school "safety patrol" to help with the school dismissal process, involvement in the [Hope] News Channel, and working in the school's garden to care for the plants and chickens. Students are selected for these various opportunities through applications, auditions, and/or nominations. Each of these opportunities is supported by one or more Hope teachers, who have either created the initiative or have volunteered to oversee its functioning and mentor students through the experience.

### **Research Question 2: How do teacher leaders interact with students to support those opportunities?**

Teacher leaders felt that they supported students and student leadership at Hope by being role models. The words "role model" or "model" appeared in 63% of the open-ended survey responses. One teacher leader wrote, "Teacher leaders help influence the students at Hope because we model for them how to be leaders in the classroom." Teacher leaders felt that in order to cultivate student leadership, students needed to see leadership in action; thus, teacher leaders believed that they needed to, and were, "leading by example."

Another way teacher leaders supported students and student leadership was through statements of affirmation and support. Words like "encouragement" and "encouraging" appeared in 50% of the responses. One teacher wrote, "Teacher leaders encourage and help when needed." Several teachers gave examples of specific ways they supported student leaders, and the majority of responses referenced teacher leaders supporting student leadership within the CASA program. For example, teacher leaders helped students develop campaigns and speeches when they wanted to run for office in the CASA program. One teacher shared how she encouraged and supported a student to run for office, "A student did not think they were 'outgoing' enough to run for CASA president. We practiced speaking in front of my class and on my lunch breaks so she would be ready and feel more confident...She won!" Another teacher had a similar experience. This teacher wrote:

I had a student that ended up having a leadership role in the CASA program. She came to my classroom to visit me before the elections to tell me she was nervous and scared. I gave her some encouraging words and told her how proud of her I was.

Running for office was a big deal at Hope and the rigorous process evoked a lot of emotions from students. Teacher leaders used encouraging words, and they practiced with students to alleviate students' nervousness, anxiety, and stress.

Once students were elected, a few teacher leaders mentioned encouraging, mentoring, and developing leadership skills in House officers as a way teacher leaders influence student leadership. One teacher shared:

I worked with the president, vice president, and historian of the Red House each week to create agendas for our house meetings. The students and I discussed topics to bring up, and also how they needed to address the house and the students in it.

Teachers donated their own time, often before and after school or during lunch or their planning periods, to nurture students as leaders, "As CASA house leader, I met with our student leaders to plan for meetings so they will be prepared. I met with them sometimes after school or during lunch

when we have upcoming events.” Another teacher said, “Every Monday morning during house meetings, every student that represented that house met to discuss the agenda.”

A few responses suggested that teacher leaders supported student leadership through instructional activities. One primary teacher shared how she utilized intermediate students to mentor her students, “As a primary teacher, I often use intermediate students to mentor some of my students with more challenging behaviors or situations.” Another teacher described how she witnessed student leadership in action in her classroom during a House meeting:

I have witnessed fourth-graders reading cards and asking probing questions to the first graders. I have seen students sharing examples and non-examples and discussing why their answer is valid. It is a powerful conversation building skill that obviously happened in the classroom that was transferred into this wonderful but respectful debate. I was just a spectator in all of this and that was the best part.

These examples show how teacher leaders support student leadership through academics and student mentoring.

**Research Question 3: What are students’ perceptions of the school culture and climate and of their teachers specifically? And how have those perceptions changed over time since the inception of teacher leadership at Hope?**

Tables 1, 2, and 3 provide students’ percentage of agreement with various indicators on the Student SCIP survey in three categories: My School, My Teachers, and My Experience. These tables include data from 2015 and 2018, as well as the percent change between these two years. The year 2015 is used as the baseline because the Student SCIP survey prior to 2015 was significantly different, making it impossible to compare to the survey given in 2015 and beyond. As these three tables demonstrate, students’ overall perceptions of their school, teachers, and experiences have improved since 2015.

As Table 1 demonstrates, the average percentage of agreement in the category My School increased from 74.6% in 2015 to 81.6% in 2018, an increase of seven percentage points. Additionally, the indicator “I have lots of ways to be involved at school” increased almost 24% since 2015, aligning with our other qualitative data that expands upon the wide variety of opportunities students have to engage in leadership roles and various experiences both in and outside of their classrooms. Two areas in this category have declined since 2015, pointing to the need for attention around these particular areas: I feel safe at school and I enjoy coming to school.

<u>Indicator</u>	<u>Hope 2015</u>	<u>Hope 2018</u>	<u>2015 to 2018 Difference</u>
<b>MY SCHOOL (composite)</b>	<b>74.6%</b>	<b>81.6%</b>	<b>7.0%</b>
There is an adult I can talk to if I have a problem.	81.7%	90.3%	8.6%
I feel safe at school.	72.1%	69.7%	-2.4%
I enjoy coming to school.	78.5%	73.9%	-4.6%
I am not bullied at school.	71.4%	80.6%	9.2%
I have lots of ways to be involved at school.	69.4%	93.3%	23.9%

Table 1: Student SCIP Survey Data: My School

Higher percentages of agreement are seen in the My Teachers category in 2018 than in 2015 in all indicators but one, resulting in an overall increase of 1.4 percentage points in this category (see Table B). Although this category has had generally high percentages of agreement since 2015, this slight growth demonstrates the ongoing and increasing success of Hope teachers in ensuring that students feel cared for and provided with important academic support. Students at Hope recognize that their teachers want them to do their best (97.6%) and that they make sure the class stays focused on learning (94.5%). The majority of students also agree that teachers use different activities to help them learn (93.9%), teachers require them to work hard (93.3%), teachers help them correct mistakes (90.9%), and teachers keep them informed about their progress (84.8%). Most students perceive that their teachers care about them (89.7%), despite the slight drop in this indicator (-0.2%) since 2015.

<u>Indicator</u>	<u>Hope 2015</u>	<u>Hope 2018</u>	<u>2015 to 2018 Difference</u>
<b>MY TEACHER(S) (composite)</b>	<b>90.7%</b>	<b>92.1%</b>	<b>1.4%</b>
My teachers care about me.	89.9%	89.7%	-0.2%
My teachers want me to do my best.	96.3%	97.6%	1.3%
My teachers use different activities to help me learn.	91.8%	93.9%	2.1%
My teachers help me to correct my mistakes.	86.1%	90.9%	4.8%
My teachers require me to work hard.	N/A	93.3%	N/A
My teachers make sure our class stays focused on learning.	89.2%	94.5%	5.3%
My teachers keep me informed about my progress.	N/A	84.8%	N/A

Table 2: Student SCIP Survey Data: My Teachers

Table 3 demonstrates that students’ perceptions of their experiences have become more positive (+10.8 percentage points) since 2015. Hope students recognize that their principal and teachers help prepare them for the next grade level (95.2%), and an increasing percentage of students agree that they are planning to go to college (84.8%). Additionally, students’ percentage of agreement with the indicator “My principal and teachers ask me what I think about school” has increased 32.5% since 2015, from 34.2% to 66.7%. New indicators included on the 2018 survey also demonstrate that students are proud to attend their school (86.7%) and that they are encouraged to show good character (82.4%). Overall, although several indicators in this category have room for ongoing improvement, these data demonstrate students’ increasingly positive perceptions of their school experiences.

<u>Indicator</u>	<u>Hope 2015</u>	<u>Hope 2018</u>	<u>2015 to 2018 Difference</u>
<b>MY EXPERIENCE (composite)</b>	<b>74.3%</b>	<b>85.1%</b>	<b>10.8%</b>
I am proud to attend this school.	N/A	86.7%	N/A
I can get help if I need it.	80.1%	N/A	N/A
I have a mentor or someone who helps me succeed.	N/A	79.4%	N/A
My principal and teachers ask me what I think about school.	34.2%	66.7%	32.5%
My principal and teachers help me to be ready for the next grade.	92.9%	95.2%	2.3%
My school uses computers to help me learn.	96.3%	97.0%	0.7%
I am encouraged to show good character.	N/A	82.4%	N/A
I am planning to go to college.	74.7%	84.8%	10.1%
I am planning to graduate from high school.	N/A	96.4%	N/A
I know how to report bad behavior.	N/A	77.0%	N/A

Table 3: Student SCIP Survey Data: My Experience

**Research Question 4: How have students performed on state standardized tests since the inception of teacher leadership at Hope?**

Table 4 provides the percentage of students achieving a score of level 3 or above on the state standardized exam (considered to be a passing score) in each subject area from 2012 to 2018, as well as the school grade as determined by the state. Although the state standardized test was significantly different prior to 2015, Table 4 demonstrates that Hope’s school grade has consistently been a D or F since 2012, until the 2018 school year. In 2018, Hope had its highest percentage of students achieving a passing score in every subject area since the change of the test in 2015. This growth contributed to the Hope’s attainment of a C as the school grade in 2018.

<u>Subject Area</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>
ELA	39	34	39	33	27	34	36
Math	31	40	37	34	33	28	46
Science	25	32	27	35	25	31	45
School Grade	D	D	F	D	D	D	C

Table 4: Percentage of Hope Students Achieving a Passing Score on Standardized Assessment

Tables 5 and 6 provide the percent change between 2015 and 2018 for Hope (Table 5) and for the district as a whole (Table 6). As these tables demonstrate, Hope’s scores improved in every area between 2015 and 2018, and the growth was greater than the district’s growth in every area as well. For example, while the district’s average percentage of students passing remained the same in math both in 2015 and 2018 (55%), Hope’s percentage increased from 34% to 46%, an increase of 12 percentage points. Similarly, Hope’s percentage of students passing the science test increased ten percentage points from 35% in 2015 to 45% in 2018, while the district saw an

improvement of six percentage points. Although the percentage of students achieving a passing score in each area is not yet equal to that of the district’s average, the accelerated growth as evidenced by greater increases than the district in all subjects offers a promising outlook for the future.

<u>Subject Area</u>	<u>2015</u>	<u>2018</u>	<u>2015 to 2018</u> <u>Difference</u>
ELA	33	36	+3
Math	34	46	+12
Science	35	45	+10

Table 5: Difference in Percentage of Hope Students Achieving a Passing Score on Standardized Assessment

<u>Subject Area</u>	<u>2015</u>	<u>2018</u>	<u>2015 to 2018</u> <u>Difference</u>
ELA	51	53	+2
Math	55	55	+0
Science	46	52	+6

Table 6: Difference in Percentage of All District Students Achieving a Passing Score on Standardized Assessment

### Discussion and Implications

The purpose of this collaborative inquiry was to explore the relationship between teacher leadership and student learning by understanding the interactions between and the influence of teacher leaders on students in an urban turnaround elementary PDS. Thus, we used the overarching research question, how are teacher leaders influencing K-5 students at Hope? to guide our longitudinal collaborative inquiry. The results indicated that students had several opportunities for student leadership and that teacher leaders worked in specific ways to foster student leadership. The results also showed that since the inception of a teacher leader academy in 2013, student perceptions of the school culture and climate, of their teachers, and of their school experiences showed overall improvements. Student achievement, as measured on state standardized test scores, also showed improvement. Thus, it is reasonable to suggest that teacher leaders shaped and were shaped by the school culture and climate as well as by students and student leadership.

Interestingly, this collaborative inquiry was conducted in an urban turnaround elementary PDS. Despite showing progress in student achievement, the school was facing takeover by an external company or closure in 2018. During the 2017-2018, the school faced increased scrutiny with the state inspectors and evaluators visiting the school weekly. As if that weekly pressure wasn’t enough, that April, as the school was administering the state standardized tests, the external takeover company began their visits to the school to prepare for takeover. It was as if Hope was being set up to fail. In such high-stakes accountability, teacher leadership is often squelched due to increased state and federal mandates to decrease local autonomy (Endacott et al., 2015). But Hope debunked that self-fulfilling prophecy in many ways. The data from our collaborative inquiry



indicated that despite the accountability pressures, teachers were still engaging in teacher leadership. They continued to model leadership for students and engage in all of the specific activities, like those connected to the student government program, in spite of increased scrutiny. Overall, a majority of students remained favorable about their school experience and their teachers. Thus, it seems reasonable to infer that teacher leaders were helping to buffer the accountability pressures.

While it is certain that various efforts and factors impact a school's climate, our study demonstrates that Hope's emphasis on developing a strong cadre of teacher leaders occurred alongside increases in students' positive perceptions of their teachers and their school experiences, as well as increases their academic achievement. Building shared leadership capacity in a school through a structure like the teacher leader academy creates a space for teachers to explore and address challenges faced within their school context, including climate factors that are perceived as having a negative impact on teaching and learning. Because school climate has been found to overlap with student achievement (MacNeil, Prater, & Busch, 2009; Reyes et al., 2012), turnaround schools will likely benefit by exploring school climate issues; and teacher leadership is one structure that has various possibilities for impacting both school climate and student learning.

Our study also demonstrated that students' perceptions of their school experiences improved alongside increases in student leadership opportunities. Students at Hope feel they have many ways they can be involved at school, and they have a wide variety of opportunities to participate in leadership roles and activities. Because student connectedness has been found to be a predictor of academic success (Libbey 2004; Lizzio et al., 2011), student leadership opportunities might be an important consideration for turnaround schools because they offer various entry points for students to engage with their school community. Although schools are understandably often eager to focus directly on student achievement initiatives, we use complexity theory and the findings in this study as a basis to suggest that efforts to improve student learning ought to be considered from a variety of angles, including teacher leadership, student leadership, and school climate.

All PDSs must attend to the professional preparation of teachers (NAPDS, 2008). Often, this essential feature seems to receive much of the focus and attention in the PDS literature and at the NAPDS annual conference. Although attending to teacher learning has always been a part of PDSs (NAPDS, 2008), it seems to receive much less attention than teacher preparation in the research. Teacher education should be conceptualized as a continuum of teacher learning from teacher preparation throughout a teacher's career rather than as a separate dichotomy (Feiman-Nemser, 2001). Thus, this collaborative inquiry is a strong example of focusing more on in-service teacher learning than on teacher preparation because it sought to understand the influence of teacher leadership on students in a PDS. Since research has struggled to connect teacher leadership and student learning, bringing the lens of complexity thinking to PDS research opens the door for reframing the scope of PDS research. This collaborative inquiry is just the beginning; it shows the potential of what can be understood when researchers ask different, non-linear questions about influence in understanding the complexity of PDSs.

### **Limitations and Opportunities for Further Exploration**

One limitation in our study is the change in data collection tools during the 2014-2015 school year. The Student SCIP survey was changed and expanded significantly in 2015; therefore, we were unable to use student survey data from 2013 (the year prior to the Teacher Leader Academy's beginning) as a baseline. Similarly, in 2015, the state department of education changed the standardized assessment used to measure student achievement in significant ways in order to align with newly adopted standards. Although data from 2013 and 2014 is included in our data tables, the student achievement data from these years is not necessarily comparable to the subsequent years.

A second limitation impacting our data is the high student transience rate at Hope. Because approximately 50% of the student body turns over each year, the student body providing our survey data and achievement data varied from year to year. Although we feel the growth in positive perceptions and student achievement is still a strong indicator of the influence of the Teacher Leader Academy at Hope, we acknowledge the limitation of high student transience as we seek to collect longitudinal data.

Finally, as is often true of analyses of student achievement data, it is difficult to draw conclusions about which factors led to impacts on students' performance. We used complexity theory as a framework in order to draw attention to the complex nature of the work taking place within our PDS, and we acknowledge the wide range of possible factors that may have influenced student achievement, student perceptions, and student leadership opportunities at Hope. For example, this study did not examine the role of school administration, including the pivotal role of the principal, in contributing to the positive changes that have occurred at Hope over the past five years. However, we assert that the Teacher Leader Academy has been a key component of our PDS and its growth and success over the years.

There is an ongoing need for research on connections between teacher leadership and student learning within PDS contexts. While our study demonstrates an overlap between teacher leadership initiatives and student learning, more research is needed to better understand how teacher leadership impacts and sustains student achievement. Additionally, this study draws attention to possibilities for exploring student leadership and student perceptions as important considerations related to student learning. Researchers might also gain important insight by taking our approach a step further by speaking with students themselves in order to more deeply understand their perceptions about factors influencing their learning and school experiences. Student academic achievement and growth might also be explored beyond only state standardized assessment data, perhaps including district, school, or classroom data as indicators of student learning. Finally, we urge researchers to continue expanding upon the exploration of teacher leadership within PDS contexts in order to contribute to our shared understanding of teachers as leaders and change-makers within our schools.

### **Conclusion**

Over the last two decades, teacher leadership has received heightened attention both in research and in practice. Currently, teacher leadership is being explored in PDS contexts (Hunzicker, 2018). Despite this attention, there is limited research aimed at understanding the

connections between teacher leadership and student learning in PDSs and at large (Wenner & Campbell, 2017; York-Barr & Duke, 2004). Our study revealed that since the launch of a teacher leader academy at Hope Elementary in 2013, student academic achievement has improved, students' perceptions of the school climate and their teachers have improved, and student leadership is occurring in a variety of ways throughout the school. Our findings indicate that teacher leadership in PDSs has powerful potential for actualizing Goodlad's (1994), among others', vision of PDSs - the simultaneous renewal of schools and universities.

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*Rebecca West Burns* is an associate professor in the College of Education at University of South Florida in Tampa, FL. *Samantha Haraf* is a doctoral candidate studying teacher education at the University of South Florida in Tampa, FL. *Francesca Perrone-Britt* is a fifth grade teacher for Hillsborough County Public Schools in Tampa, FL. *Megan Porter* is a fifth grade teacher for Hillsborough County Public Schools in Tampa, FL. *Amanda Bellas* is a teacher leader for Hillsborough County Public Schools in Tampa, FL. *Woodland Johnson* is currently serving as General Director of Federal Programs for Hillsborough County Public Schools in Tampa, FL. *LaTiecea Hailey-Brown* is currently serving as acting principal for Hillsborough County Public Schools in Tampa, FL.