Teachers' Self-Reported Leadership Behaviors in Formal and Informal Situations

Heidi B. Von Dohlen
Western Carolina University, U.S.A.

Meagan Karvonen
University of Kansas, U.S.A.

The growing emphasis on teacher leadership has been recognized in scholarly literature as well as in professional teaching standards. A survey of 493 public school teachers throughout North Carolina was distributed to identify leadership behaviors across settings and situations (Von Dohlen, 2012). Teacher leadership behaviors were grouped according to type (formal/informal) and setting (classroom/school/profession). Teachers reported leadership behaviors in the classroom most often. The least frequent teacher leadership behaviors reported were formal leadership in the school and in the profession. Among all situations and settings, the single most frequently reported behavior was creating and maintaining a safe and supportive classroom and the least frequent reported behavior was seeking opportunities to lead professional development activities beyond school walls. As schools continue to evolve as organizations where leadership is distributed among all educators, understanding teacher leadership behaviors in varied settings may help formal and informal school leaders to collaboratively and more effectively lead.

Keywords: teacher leadership, teacher leaders, formal leadership, informal leadership, distributed leadership, teacher leadership standards, professional teaching standards

Introduction

Teacher leadership has been studied with growing intensity for the past two decades (Lindahl, 2008; Little, 2003; York-Barr & Duke, 2004), a trend that has coincided with the increase in democratic ideals embedded in educational rhetoric (Lindahl, 2008; Little, 2003; York-Barr & Duke, 2004). Educational researchers and practitioners have advocated for increased teacher leadership in order to improve K-12 public schools (York-Barr & Duke, 2004). The shift from developing teaching skills to developing leadership is a significant change from what teachers have historically experienced (Harris, 2003; Helterbran, 2010) and traditional school norms such as egalitarianism, seniority, and autonomy can affect teachers' response to teacher leadership (Weiner, 2011).

Leadership can be cultivated from the beginning of teachers' careers (Hummel, 2009). However, teacher leadership has yet to be fully operationalized in our nation's public schools (Beachum & Dentith, 2004; Helterbran, 2010; Katzenmeyer & Moller, 2009; York-Barr & Duke, 2004), and a lack of empirical research into teacher leadership persists (Jackson, Burns, Bassett & Roberts, 2010). Furthermore, the term "teacher leadership" has yet to be well defined (Neumerski, 2012).

This study addresses a gap in literature as few quantitative studies have been reported that examine teacher leadership behaviors (Wenner & Campbell, 2017). According to Poekert (2012), research on teacher leadership remains primarily qualitative rather quantitative, and foundational rather than analyzing how teacher leadership is actually practiced. Some states are now requiring teacher leadership as an element of teacher evaluations (Wenner & Campbell, 2017), and many teachers do not perceive themselves as leaders (Wilson, 2016).

In the 2010-2011 school year, North Carolina professional teaching standards were implemented requiring all classroom teachers to demonstrate leadership in the classroom, in the school, and in the profession, this article adds to the knowledge base as we seek to better understand and define teacher leadership behaviors. The design of this study included a cluster random sampling approach and online survey research methods to investigate leadership behaviors among classroom teachers (N=493) in North Carolina. The purposes of this study were to (1) identify specific leadership behaviors teachers report engaging in across settings and (2) identify differences in degree of teacher leadership across situations.

Review of Literature

Based on their review of empirical research on teacher leadership from 2004 to 2013, Wenner and Campbell viewed teacher leaders as, "…potentially among the most influential leaders in schools" (2017, p. 140). With all of the responsibilities required of public schools, multiple scholars have argued that leadership only by those in formal positions is ineffective (Barth, 2001; Lambert, 2003) and an exclusive focus on principal leadership is non-inclusive of all types of leadership in schools (Spillane, Camburn & Lewis, 2006). In order for schools to meet all of the demands today, diverse forms of leadership and expertise (Harris & Spillane, 2008) and teacher leadership is essential (Harris & Muijs, 2005; Louis & Wahlstrom, 2011; Silva, Gimbert, & Nolan, 2000). Many teachers desire to have a wider influence in their profession, although they do not aspire to be administrators (Danielson, 2007).

Barth (2001) asserted just as all students can learn, "…all teachers can lead. Indeed, if schools are going to become places in which all students are learning, all teachers *must* lead" (p. 444). The omission of teacher leadership in schools is not only ineffective, it is not feasible (Lambert, 2003). With the increasing levels of accountability and demands for student achievement in K-12 public schools, the distribution of leadership among all educators in our nation's schools is needed (Neuman & Simmons, 2000; Ogawa & Bossert, 2000; Scribner, Sawyer, Watson & Meyers, 2007). Scholars theorize that all stakeholders in the school community benefit through distributed leadership (Leithwood & Mascall, 2008; Miller, 2008) because leadership responsibilities are shared among all educators (Leithwood & Mascall, 2008; Lindahl, 2008; Robinson, 2008). Maxfield, Wells, Keane, and Klocko (2008) declared, "In effect leadership has evolved from a personal characteristic to an organizational one, from an individual function to a collective function" (p. 4).

Leadership and learning are mutually supporting and indispensable to each other (Clarke, 2016) and as teachers develop as leaders, their new learning spills over into the classroom to positively impact teaching and learning throughout the school (Hallinger & Heck, 2010; Leithwood & Mascall, 2008; Louis & Wahlstrom, 2011). The term "teacher leader" is defined in many ways through a combination of traits and actions. Traits of teacher leaders include being perceived as excellent teachers and being respected by their peers. Demonstrating knowledge of excellent instructional practices, understanding the school culture, and having skills to lead colleagues are traits of successful teacher leaders (York-Barr & Duke, 2004). Danielson (2007) said, "Teacher leaders call others to action and energize them with the aim of improving teaching and learning" (p. 16).

As indicated by definitions of teacher leaders, teacher leadership is also defined in many ways (Neumerski, 2012). York-Barr and Duke (2004) contended "the concept of teacher leadership has not been clearly or consistently defined" (p. 263). Anderson (2004) defined teacher leadership as "…a fluid, interactive process with mutual influence between leader and follower" (p. 100). Crippen (2005) explained teacher leadership as a process that establishes the democratic ethos of reflective thinking and independent decision-making. York-Barr and Duke (2004) defined teacher leadership as "…an umbrella term that includes a wide variety of work at multiple levels in educational systems, including work with students, colleagues, and administrators and work that is focused on instructional, professional, and organizational development" (p. 288). Öqvist and Malmström (2017) defined teacher leadership behavior as "… a mobilisation of the available attributes of teachers to influence students at the ground level during their daily activities at school, within and outside of the classroom, and beyond" (p. 5).

Shared leadership, a culture of collaboration, generating ideas together, and constructing meaning collectively engenders teacher leadership (Harris and Lambert, 2003). As teachers work collaboratively, their educational practices improve (Printy, 2008) and dialogue promotes collaborative thinking and reflection which fosters leadership for learning (Harris & Muijs, 2005; Clarke, 2016). Teachers demonstrate leadership as they set agendas, work toward shared goals, encourage creativity, and build strong relationships with other teachers and leaders (Printy, 2010).

Professional learning communities (PLCs) promote teacher leadership as they collaborate (Wilson, 2016). When schools function as learning communities, teachers develop strong, trusting relationships which in turn, promote stronger teacher-student relationships (Louis & Wahlstrom, 2011). In a case study of 21 educators, Riveros, Newton, and da Costa (2013) found that teacher leaders need to be able to develop trust among peers. The authors concluded that "…teacher leadership is fundamentally about forming collegial relationships with other teachers" (p. 9). As teachers share responsibility for the vision of the school, relationships are transformed, followers become legitimate stakeholders in the process, and schools move away from hierarchy and toward a new understanding of the concept of leadership (Owens & Valesky, 2007). However, a case study of 17 preservice educators found that aspiring teachers had a much more student and classroom centered viewpoint of teacher leadership, rather than viewing teacher leadership from a whole school perspective (Leeper, Tonnesen, & Williams, 2010).

Formal and Informal Teacher Leadership

Riveros et al. (2013) found that teacher leaders often had difficulty discerning the difference between formal and informal teacher leadership. However, teacher leaders usually evolve through informal leadership. There are recognized formal positions of teacher leadership (Patterson & Patterson, 2004) such as department chairs, lead teachers, mentors, instructional coaches (Dozier, 2007; Harris, 2003; Lambert, 2003; Leithwood & Jantzi, 1999), members of curriculum committees (Patterson & Patterson, 2004), and union representatives (Leithwood & Jantzi, 2000). Through these formal positions, teachers advocate for teachers' work (Leithwood & Jantzi, 2000).

Leadership is not limited to formal position within the hierarchy of an organization (Fairman & Makenzie, 2015). Furthermore, when leadership is confined to formal positions, informal leaders are often excluded from decision-making (Anderson, 2004). In addition to formal leadership roles, teachers also lead informally (Ackerman & Mackenzie, 2006; Harris, 2003; Lambert, 2003). Leonard and Leonard (1999) found teachers considered informal leadership to evoke change more than formal collaborative leadership. Teachers lead informally by bringing innovative ideas to the school, working on projects, sharing professional expertise (Leithwood & Jantzi, 1999), volunteering for new projects (Leithwood & Jantzi, 2000) working on curriculum, mentoring colleagues, encouraging parent and community involvement (York-Barr & Duke, 2004), and influencing colleagues to improve educational practice by leading in learning communities (Halverson, 2003; Harris, 2003; Harris & Muijs, 2005; Lattimer, 2007; Leithwood & Jantzi, 1999; Louis & Wahlstrom, 2011). By actively planning their school's professional development plans, teachers not only lead, they enhance the chances of successful outcomes on school initiatives (Teachers Network Leadership Institute, 2005).

Because of the collective nature of leadership, Poekert (2012) asserted literature on distributed leadership supports and enlightens what is known about teacher leadership. Distributed leadership imports the interactions of individuals in both formal and informal roles (Harris & Spillane, 2008). Educators are assuming new roles, forging new relationships, and working within new frames of reference (Leonard & Leonard, 1999). When leadership is defined based on formal roles and responsibilities, teachers often do not identify themselves as leaders. However, when leadership is defined as a broad, inclusive, participatory process, teachers sense their purpose in leadership (Lambert, 2003). By removing job titles from the concept of leadership and distributing leadership responsibilities according to the situation, all educators can be leaders (Harris, 2003; Lambert, 1998; Neuman & Simmons, 2000; Phelps, 2008; Spillane, Halverson, and Diamond, 2004) because decisions emerge from the collaborative efforts of many individuals (Lambert, 1998; Spillane et al., 2004; Scribner et al., 2007).

Spillane et al.'s (2004) distributed leadership perspective addresses the multi-faceted concept of teacher leadership. Within distributed leadership, leadership practice is stretched over leaders in the organization (Spillane, 2006). Furthermore, interactions among leaders, followers, and the school situation are mutually interdependent (Spillane et al., 2004). According to Beachum and Dentith (2004), when leadership is distributed in the school, leadership shifts from authoritative to democratic and teacher leadership is visible throughout the school. Teachers participate in virtually every operation within the school (Silva et al., 2000). Teachers are embedded in the context of the school and they have the ability to shape the school situation overtime (Lindahl, 2008). Leadership and the school context, therefore, interact as beliefs are shared, ideas are generated, and actions are implemented (Harris, 2003).

As teachers grow as leaders, they are able to expand their influence beyond their classroom walls to affect teaching and learning within their schools (Katzenmeyer & Moller, 2009, Phelps, 2008; Danielson, 2007). As more teachers are expected to demonstrate leadership, the practice of leadership in public schools is compelled to change. Just as teachers have been trained to teach, now teacher leaders must be trained to lead (Dozier, 2007; Lord & Miller, 2000). In a study of 179 classroom teachers from 37 states that had received awards for excellence in the classroom, Dozier (2007) found teacher leaders want new leadership roles to expand to policymaking and teacher recruitment, and teachers want more training so they can be more effective and engaged in policymaking. Baird and Heinen (2015) asserted teacher training programs should educate aspiring teachers regarding their role in political processes as well as training them for the classroom. However, Hinnant-Crawford (2016) found that teachers see their role as one to implement policy, not create or develop policy. Teachers believe their efforts to improve education are in their classroom, not in policy development. However, teachers also believe that policy makers are ill-informed and are not trustworthy. Baird and Heinen (2015) contended teachers need to elevate their political voices and have a greater influence on policy-making by collaborating with national networks and stakeholders.

The growing emphasis on teacher leadership has been recognized not only in the scholarly literature, but also in professional teaching standards. The teacher evaluation rubric in Massachusetts includes decision-making and shared responsibility (Massachusetts Department of Elementary and Secondary Education, 2015). The South Carolina Teaching Standards Rubric states "…the educator accepts leadership responsibilities…" (South Carolina Department of Education, 2017). New Jersey Department of Education (2014) has an entire standard devoted to leadership and collaboration which states, "The teacher seeks appropriate leadership roles and opportunities to take responsibility for student learning, to collaborate with learners, families, colleagues, other school professionals, and community members to ensure learner growth, and to advance the profession" (p. 36). North Carolina, like other states, requires its teachers to expand their skills to demonstrate leadership in the classroom, in the school, and in the profession. Demonstration of leadership in these three settings is part of Standard 1 on the teacher evaluation rubric (North Carolina Department of Public Instruction, 2008).

Given the emphasis on leadership in professional teaching standards, teachers may be demonstrating leadership in a variety of ways. This study examined formal and informal teacher leadership behaviors in the classroom, in the school, and in the profession. This study addressed two research questions:

1. What specific leadership behaviors do the teachers report engaging in, across settings and situations?
2. Do teachers report participating in certain types of leadership more often than others?

Methods

Setting and Sample

This survey study was conducted in North Carolina, USA. North Carolina has statewide professional standards for teachers and principals, both of which reflect an expectation for teacher leadership. As of the 2010-2011 school year, all teachers were required to demonstrate leadership in the classroom, in the school, and in the teaching profession (North Carolina Professional Teaching Standards, 2008). Additionally, principals are expected to utilize distributed leadership and engage teachers in leadership roles (North Carolina Department of Public Instruction [NCDPI], 2006).

The population for this study consisted of employed classroom teachers in North Carolina public schools in the 2011-12 school year. Teachers working in non-administrative yet supervisory or leadership roles such as instructional or literacy coaches were excluded in the sample. Similarly, other certified educators such as school counselors, media coordinators, and school social workers were excluded because educators in these roles are not evaluated using the same criteria as classroom teachers, and the inclusion of all non-administrative educators was beyond the scope of this study.

A cluster random sampling approach was used to survey public school teachers throughout North Carolina. North Carolina has 115 public school districts that are divided into eight regions. To ensure representation from across North Carolina, and to access the greatest possible number of participants, the school district from each region with the largest number of classroom teachers was purposefully selected to participate in this study. School districts were assured that no identifying individual, school, or school district information would be provided in this study.

The North Carolina Public Schools Statistical Profile (NCDPI, 2009) was used to identify school districts by region. Then, the Experience Status of School-based Instructional Personnel (NCDPI, 2011) was used to estimate the number of classroom teachers in each school district. The superintendent in each of the eight school districts with the largest number of classroom teachers was contacted by email to explain the study. Superintendents were asked to approve of their teachers participating in the study, and were asked to provide email addresses of all certified teachers in their districts. Superintendents granted approval to contact teachers for participation via email or by an approval letter generated by them. If superintendents did not respond after reminder emails, the next largest district in the region was invited to participate. This process continued until one school district from seven regions agreed to participate in the study. In the remaining region, every school district was asked to participate, and all superintendents either declined or did not respond.

Participating regions included school districts whose student enrollment ranged from 3,000 to over 50,000. Over 200 schools in urban, suburban, and rural settings were represented. The sampling frame consisted of current classroom teachers in North Carolina. The original projected sample size was Krejcie and Morgan's (1970) recommended sample size of 384 for a population of 100,000. The actual sample size was 493 respondents.

Instrument

The survey consisted of a Teacher Leadership Behavior Questionnaire designed by the first author. Twenty-two items related to leadership behaviors were derived from reviewed literature and the North Carolina Professional Teaching Standards (NCDPI, 2008). Items derived from the North Carolina Professional Teaching Standards include those addressing professional learning communities, collaboration, school improvement plans, positive work relations, and professional growth opportunities. Items from reviewed literature include influencing colleagues, bringing innovative ideas to the school, sharing professional expertise with colleagues, encouraging parent and community involvement, and reflecting on one's teaching practice. This part of the questionnaire used a 5-point Likert scale and the following labels: never, very seldom, occasionally, moderately often, and very often.

The initial list of leadership behaviors was reviewed by an expert panel of 9 North Carolina principals. Panelists independently classified each of the 22 leadership behaviors using a 3 (setting) by 2 (situation) matrix, identifying survey items as leadership in the classroom, in the school, or in the profession; and leading in formal or informal situations. Each panelist indicated if an item fit more than one category equally well or if an item did not fit any of the categories well. Items were retained only if 75% of the coders classified them in the same way and if items were not cross-classified into multiple categories. One item was deleted because it did not meet these criteria. The final instrument was electronically pilot tested by 48 classroom teachers outside of the sampling frame for this study. Participants completed the pilot test electronically and were given a hyperlink to print a paper copy of the pilot study feedback form. There were no suggested modifications to address item confusion or bias.

Based on the pilot study, a Cronbach's alpha of internal consistency reliability of the 6-item measure of informal leadership in the classroom was .694. Seven items measured informal leadership in the school ($\alpha = .596$). Four items measured formal leadership in the school ($\alpha = .600$), and three items measured formal leadership in the profession ($\alpha = .652$). One item measured formal classroom leadership and one item measured informal leadership in the profession. Survey items on teacher leadership behavior scales related to formal and informal leadership in the classroom, in the school, and in the profession are in Table 1. The questionnaire also included five demographic items: age range, years of teaching experience, type of school, and school setting.

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Table 1
Items in the Teacher Leadership Behavior Scales

Situation	In the Classroom	In the School	In the Profession
Formal	I create lessons that require students to collaborate.	I participate in developing the school improvement plan.	I serve on a curriculum committee in my district.
		I lead in professional learning community.	I participate in developing policies and practices to improve student learning at the state level.
		I am a formally designated mentor to a new teacher.	I seek opportunities to lead professional development activities in my school district, region, or state.
		I seek opportunities to lead professional development activities in my school.	
Informal	I create a classroom culture that empowers students to collaborate.	I collaborate with colleagues to improve the quality of learning in the school.	I promote positive working relationships through professional collaboration within my school district.
	I evaluate student progress using a variety of assessment data.	I participate in professional learning community.	
	I create and maintain a safe and supportive classroom environment.	I volunteer to work on new projects and initiatives in my school.	
	I analyze student data to guide my instruction.	I lead an extracurricular activity.	
	I can provide evidence of student learning in my classroom.	I informally mentor new teachers.	
	I reflect on my teaching practice.	I actively encourage parent involvement.	
		I actively encourage community involvement.	

Procedures

Data were collected through a survey questionnaire at the commercial website, Qualtrics. Statistical analysis was conducted using SPSS 20.0 for Mac. Demographic data were analyzed using descriptive statistics including frequencies and percentages. The 22 teacher leadership behaviors were classified into six situations: informal classroom, formal classroom, informal school, formal school, informal profession, and formal profession. For research question 1, frequencies and percentages were used to analyze teacher leadership behaviors at the item level. For research question 2, items for each situation were combined into scales.

Demographic Information of the Sample

This study had more female (83%) than male (16%) teachers responding. Respondents were represented relatively evenly in the characteristics of age range, years of teaching experience, and type of school. Among the characteristic for school setting, suburban (38.5%) and rural (56.8%) teachers were represented more often than urban (4.7%) teachers.

Findings

Responses to individual survey items are summarized in Table 2. Whether formal or informal, respondents most often reported exhibiting leadership in the classroom. Within informal classroom leadership, creating and maintaining a safe and supportive classroom environment had the highest reported frequency (94.3% very often), while analyzing student data to guide instruction had the lowest reported frequency (59.5% very often). In the classification of formal classroom leadership, 62.6% respondents indicated they very often create lessons that require students to collaborate.

Within the classification of informal school leadership, respondents indicated collaboration with colleagues to improve the quality of learning in the school as the most frequent leadership behavior (53.5% very often). This finding aligns with Smulyan's (2016) assertion, that informal collaboration is a component of how teachers progress from teachers to teacher leaders. Conversely in the same classification of informal school leadership, 23% of respondents reported they actively encourage community involvement very often. The lowest reported frequency of leadership behaviors fell in the category of formal profession. Only 15% of respondents indicated they participate in developing policies and practices to improve student learning at the state level moderately or very often, and 58.3% said they never engage in this leadership behavior. Similarly, 60.8% said they never or very seldom seek opportunities to lead professional development in their school district, region, or state.

Collaboration in the school, in the classroom, and in the profession included teacher leadership behaviors in which respondents reported high levels of frequency. In the classroom, 91.7% of respondents reported creating lessons that require students to collaborate moderately or very often. In the school, 83.9% of respondents indicated they collaborate with colleagues to improve the quality of learning moderately or very often. In the profession, 69.2% reported they promote positive working relationships through collaboration within their school districts moderately or very often. When collaborating within PLCs, 83.4% reported participating moderately or very often, and 43.4% reported leading a PLC moderately or very often. When leading by mentoring new teachers, 45.2% reported informally mentoring moderately or very often, although 58.2% reported never being a formally designated mentor to new teachers.

Table 2
Frequency Distribution of Specific Teacher Leadership Behaviors

	Never		Very Seldom		Occasionally		Moderately Often		Very Often	
Situation	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
Informal Classroom										
I create a classroom culture that empowers students to collaborate.	0	0	1	.2	31	6.3	98	20.0	361	73.5
I evaluate student progress using a variety of assessment data.	0	0	1	.2	28	5.7	96	19.5	367	74.6
I create and maintain a safe and supportive classroom environment.	0	0	2	.4	3	.6	23	4.7	462	94.3
I analyze student data to guide my instruction.	1	.2	7	1.4	42	8.6	148	30.3	291	59.5
I can provide evidence of student learning in my classroom.	0	0	2	.4	19	3.9	84	17.2	383	78.5
I reflect on my teaching practice.	1	.2	3	.6	22	4.5	89	18.1	376	76.6
Formal Classroom										
I create lessons that require students to collaborate.	1	.2	9	1.8	36	7.4	136	27.9	305	62.6
Informal School										
I collaborate with colleagues to improve the quality of learning in the school.	5	1.0	14	2.9	60	12.2	149	30.4	262	53.5
I participate in professional learning community.	7	1.4	11	2.3	63	12.9	146	30.0	260	53.4
I volunteer to work on new projects and initiatives in my school.	10	2.1	67	13.8	140	28.8	147	30.2	122	25.1
I lead an extracurricular activity.	116	24.1	71	14.7	55	11.4	66	13.7	174	36.1
I informally mentor new teachers.	88	18.1	78	16.1	100	20.6	107	22.1	112	23.1
I actively encourage parent involvement.	2	.4	26	5.3	107	21.9	170	34.8	183	37.5
I actively encourage community involvement.	17	3.5	93	19.1	141	29.0	124	25.5	112	23.0

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Table 2 (continued)

	Never		Very Seldom		Occasionally		Moderately Often		Very Often	
Situation	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
Formal School										
I participate in developing the school improvement plan.	65	13.3	141	28.8	148	30.2	71	14.5	65	13.3
I lead in professional learning community.	84	17.4	94	19.4	96	19.8	100	20.7	110	22.7
I am a formally designated mentor to a new teacher.	277	58.2	54	11.3	39	8.2	18	3.8	88	18.5
I seek opportunities to lead professional development activities in my school.	85	17.4	123	25.2	140	28.7	86	17.6	54	11.1
Informal Profession										
I promote positive working relationships through professional collaboration within my school district.	6	1.2	32	6.5	113	23.1	135	27.6	204	41.6
Formal Profession										
I serve on a curriculum committee in my district.	153	31.3	91	18.6	109	22.3	70	14.3	66	13.5
I participate in developing policies and practices to improve student learning at the state level.	287	58.3	80	16.3	51	10.4	36	7.3	38	7.7
I seek opportunities to lead professional development activities in my school district, region, or state.	186	38.1	111	22.7	97	19.9	60	12.3	34	7.0

Table 3 summarizes the results when items were combined into scales for each situation. Informal classroom leadership had the highest average scale value (*M* = 4.69, *SD* = .364), followed by formal classroom leadership (*M* = 4.50, *SD* = .731) and informal leadership in the profession (*M* = 4.01, *SD* = 1.01). Formal leadership in the school (*M* = 2.72, *SD* = .921) and formal leadership in the profession (*M* = 2.24, *SD* = 1.01) had the lowest average.

Table 3
Teacher Leadership Behaviors by Situation

Situation	***N***	***M***	***SD***	***Mdn***	***IQR***
Informal Classroom	484	4.69	.364	4.83	4.50
Formal Classroom	487	4.50	.731	5.00	4.00
Informal School	462	3.72	.628	3.85	3.28
Formal School	468	2.72	.921	2.75	2.00
Informal Profession	490	4.01	1.01	4.00	3.00
Formal Profession	486	2.24	1.01	2.00	1.33

Teacher leadership is occurring most in the places and ways that are perhaps the easiest for teachers to grow as leaders and have the greatest influence. On average, informal classroom leadership was the most frequent teacher leadership behavior reported, followed by formal classroom leadership and informal leadership in the profession. Formal leadership in the school and formal leadership in the profession were the least frequent teacher leadership behaviors. This finding aligns with Bradley-Levine's (2016) conclusion that teacher education and educational leadership programs need to examine how they develop leadership skills in future educators.

Within formal leadership in the school, participating in a professional learning community was the behavior with the greatest reported frequency. This finding aligns with Lambert's (2003) assertion that leadership emerges as adults learn together and engage in reflective dialogue in a learning community. The leadership behavior in the school with the lowest reported frequency was actively encouraging community involvement. Collaborating with families and significant adults in the lives of students to ensure the academic success of students is one element of a professional standard on which teachers are evaluated in North Carolina (NCDPI, 2008).

In the classification of leadership in the profession, respondents reported enacting informal leadership more often than formal leadership. Within the classification of informal leadership in the profession, a majority of respondents reported they promote positive working relationships through professional collaboration within their school district. Within the classification of formal leadership in the profession, very few respondents indicated they participate in developing policies and practices to improve student learning at the state level. These findings support research by Dozier (2007) who found teacher leaders want leadership

training to expand so they can be more effective and engaged in policymaking. In a study 10 years later, Bradley-Levine (2016) similarly concluded that teacher education and educational leadership programs need to train teachers to lead. Less frequent leadership behaviors in the profession further support the findings of Leeper, Tonnesen, and Williams (2010) in which preservice elementary educators noted the need to better understand political, global, and hierarchical structures in education.

Collaboration is a leadership behavior that can occur in formal and informal situations, which might explain the high frequency teachers reported in this study. Across classifications of leadership in the classroom, in the school, or in the profession, teacher leadership behaviors involving collaboration had high levels of frequency. In the classroom, respondents reported creating lessons that require students to collaborate. In the school, respondents reported they collaborate with colleagues to within professional learning communities. In the profession, respondents reported they promote positive working relationships through collaboration within their school districts.

Discussion

The implementation of PLCs, emphasis on collaboration, and bringing teachers out of isolation with the aim of improving teaching and learning has been a movement in education for several years. Wilson (2016) stated, "The collective knowledge and collaboration that exists within PLCs are factors that contribute the overall effectiveness of school" (p. 58). Although the implementation of PLCs varies by schools and school districts, collaboration with others is now a commonly understood norm in education. Collaboration in the classroom, in the school, and in the profession across North Carolina may have been less several years ago, and may be different several years from now.

Collaboration is a teacher leadership behavior that can influence improved teaching, learning, and leading (Little, 1990; Harris & Muijs, 2005; Clarke, 2016). The ability to collaborate with others is paramount (Danielson, 2007). As teachers collaborate, influence becomes an essential component of leadership (Yukl, 2006) and educational practices improve (Printy, 2008). Currently, providing time for collaboration is the responsibility of individual principals and teachers themselves, within the confines of an already full schedule.

In regards to the least reported teacher leadership behavior and setting - leadership in the profession and policy development - there is a need to increase teachers' voices, perspectives, and leadership. The shift from developing teaching skills to developing leadership is a significant change from what teachers have historically experienced (Harris, 2003; Helterbran, 2010). However, in order for teachers to lead, leadership training is needed (Danielson, 2007; Dozier, 2007; Lattimer, 2007). With increased training focused on teacher leadership, teacher leaders can more effectively evolve from being consumers of change to producers of change, leading beyond their classrooms and increasing leadership behaviors in the school and in the profession.

Limitations

There were some limitations to this study. While the demographics of the respondents were generally representative of the teaching population in North Carolina, some of their characteristics may have impacted the findings. Types of teacher leadership and frequency of teacher leadership may vary depending upon school level, gender, and setting. Of the respondents in this study, 84% were female, 57% taught in rural settings, and 41% taught in elementary schools. It is possible that this demographic group leads, but that they do not necessarily identify themselves as "leaders." However, a majority of schools in North Carolina are elementary schools in rural settings. Further analysis of respondents at the elementary, middle, and high school levels may reveal differences across grade levels in teacher leadership behaviors.

Another limitation of this study is the survey tool needs further psychometric testing. The results of the analysis of this tool were preliminary. The Cronbach's alphas of some of the subscales were less than .7. Further refinement and testing of this tool is needed.

Finally, the largest percentage of respondents (29%) had 20 or more years of experience. Teachers with more than two decades of experience are perhaps more likely to respond to a survey on teacher leadership because they, quite possibly, already view themselves as teacher leaders. Therefore, the findings of this study may best reflect the phenomenon of teacher leadership among more experienced teachers. Interestingly, respondents with 16 to 19 years of experience only accounted for 13% of the sample, while the other 3 lower ranges of experience each represented 18% to 20% of the sample. Hunzicker (2017) purported teachers evolve into teacher leaders through a recursive process in which they develop their ability to influence colleagues over time.

Implications for Practice

With new professional standards requiring teachers to demonstrate leadership in the profession, it would behoove state education agencies and teacher training programs to include efforts on building formal teacher leadership skills in developing policy and in leading in the profession outside of school walls. Encouraging collaboration through Professional Learning Communities and teachers training teachers in professional development would also strengthen a culture of teacher leadership in schools and school districts. Finally, financial and professional support for teachers to attend and present at regional, state, and national conferences could positively impact teacher leadership in classrooms, schools, and the profession.

Delimitations

One delimitation of the study is that the sample includes classroom teachers but it does not include other certified, non-administrative educators such as media coordinators, instructional coaches, counselors, or school social workers. At the time of this study, professional standards had been changed in North Carolina for classroom teachers to include leadership in the classroom, in the school, and in the profession. However, at the time of this study, professional standards for other certified educators did not include the same criteria to demonstrate leadership. Therefore, the population for this study was delimited to include only classroom teachers. Since the time of this study, professional standards in North Carolina for other certified educators have been updated to include forms of leadership, however, language and settings for how and where leadership should occur differ.

Areas for Future Research

The change in professional standards to include demonstrating leadership for all certified educators is one area of future research. As schools become organizations where leadership is distributed among all certified educators, understanding teacher leadership behaviors and how teachers use influence while leading within schools may help teachers to be more effective leaders is one significant area of research. However, now that North Carolina requires the demonstration of leadership for all certified educators, regardless of position, continued research is needed to best understand leadership across the whole school and school district.

Continued research on teacher leadership and its incorporation into practice is needed (Mangin & Stoelinga, 2010). Specifically, continued research on how teachers lead other teachers is needed. Since this study is a cross-sectional research design, a follow-up study at a later date could provide meaningful information to educators when teachers have worked for a longer period of time under the professional standards that all teachers must demonstrate leadership in the classroom, in the school, and in the profession. Replications of this study in other states or regions of the United States, and internationally would also add to the field of what is known about teacher leadership behaviors. More empirical research on how principal support influences teacher leadership would further add to the knowledge base. Furthermore, how teachers influence each other as both leaders and followers would contribute to what is known about "how" teachers lead in classrooms, schools, and the profession.

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