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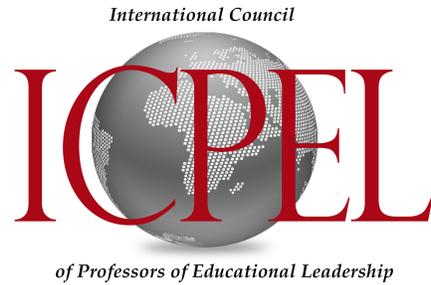
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The **Education Leadership Review of Doctoral Research (ELRDR)** is an ICPEL publication of doctoral research in education leadership and a companion peer reviewed journal to the Education Leadership Review (ELR). Lead authors are recent doctoral graduates with chair or committee member serving as coauthor/s. Research is limited to dissertations, capstones, and action research projects. The purpose of the ELRDR is to disseminate the results of doctoral research in education leadership and school administration.

All manuscripts have been peer-reviewed, accepted, and endorsed by the International Council of Professors of Educational Leadership (ICPEL) as a significant contribution to the scholarship and practice of school administration and K-12 education



Education Leadership Review of Doctoral Research
Fall 2021

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From the Editors

This issue of *Education Leadership Review of Doctoral Research* (ELRDR) is published in recognition of the extensive work that recent doctoral graduates, chairs, and/or committee members complete to augment the field of education leadership and administration. The ongoing quest to continue to focus on research-based findings to create a bridge between theory and practice in K-12 education and school leadership remains essential, especially as educators continue to grapple with supporting students and staff amidst pandemic impacts. We are excited to support the work of recent doctoral graduates, and it is promising to see that their endeavors continue to show that effective educational leadership transcends all contexts. We encourage you to further promote our aims to your colleagues and recent graduate students so that we may continue to support new authors and contribute to recent, innovative, and meaningful work to the field. Additionally, we remain deeply grateful to our authors, editorial advisors, and peer reviewers for continuing such scholarly work as we approach two years into the pandemic.

In this edition, Amber Tackett's work, "Predicting the Social Justice Leadership of Educational Leaders in Appalachia Kentucky: Why Context Matters," reflects a timely topic that requires attention across all educational settings. Social justice leadership endeavors reflect attention to diversity, equity, and inclusion, and her work demonstrates that within her unique setting factors examined were not statistically significant. However, there were distinctions by school level, and her work demonstrates that context matters. Importantly, additional work to explore social justice leadership through quantitative measures remains of importance the scholarly field and to those in practice.

Melody Edmonds, Jill Channing, and James Lampley also attend to a timely topic in, "Influence of Student and Instructor Characteristics in Online Student Success." Their non-experimental, quantitative case study compared the academic success of community college students over three academic years using archival data from selected online and on-ground classes at a Middle Tennessee community college. They found that Female students, part-time students, and non-traditional students were more likely to be successful, and especially when taught by full-time, tenured faculty. As institutions of higher education explore ways to provide more online offers with increased demands since the start of the pandemic (and a general trend before that), their work attends to the need to support students while also attending to the professional learning among faculty in order to benefit all involved.

The work of Leslie Sharp, John Pijanowski, and Gail Hughes in, "Teacher and Administrator Perspectives from Experiences in the Teacher Leadership Initiative" takes us into the area of leadership development. Their study centered on experiences of teacher and administrator participants in a nationwide teacher leadership pilot and the yearlong event's effects on leadership, school improvement, and professional practices. Findings revealed changes in thinking about leadership that directly improved professional efficacy, collaborative and leadership skills, and a new sense of identification as a leader that was not experienced before engagement in the pilot program. Their work attends to the importance of shared leadership practices among teacher and school leaders, along with a need for

school systems and structures to allow teacher leadership to become a norm to better support ongoing demands of increased student achievement and school improvement.

This need for student achievement and school improvement is a driving force in the work of Susan Ernst and Wendy Fothergill, “How Can Leaders Develop and Maintain High Achieving Elementary Schools? A Single Case Study Exploring Collective Teacher Efficacy and Principal Leadership.” They note the ability to navigate and cope with difficult situations is another source of efficacy, also known as affective states and that, aside from the dynamic situation posed by COVID-19, teachers shared other ways affective states are exemplified within the case site. Centered on collective teacher efficacy, their study contributes to a strengthened need for collaborative opportunities with leadership time and support.

As always, please encourage your colleagues and their recent doctoral graduates to take the next step beyond the dissertation by pursuing authorship of their work. Your support allows us to engage in and disseminate innovative and meaningful work in Educational Leadership.

Sincerely,
Jafeth E. Sanchez, PhD
Editor, *The Education Leadership Review of Doctoral Research*

Jennifer K. Clayton, PhD
Assistant Editor, *The Education Leadership Review of Doctoral Research*

Social Justice Leadership of Educational Leaders in Appalachia Kentucky: Why Context Matters

Amber Tackett

The Art of Education University

Critical consciousness is a crucial component of social justice leadership. This quantitative research focused on the perceptions of social justice leadership of principals and assistant principals in Central Appalachia as measured by the Social Justice Leadership Questionnaire (SJQ2). The research was inspired by the theoretical framework of the International School Leadership Development Network to examine if personal (years of experience as an administrator, years living in Appalachia, and current position) and school predictor variables (Title I status and grade-level) affect the social justice leadership propensity of school administrators. Multiple regression analysis was utilized determine if personal and school predictor variables had any effect on the perceptions of assistant principals and principals in Appalachian counties of Kentucky. The results suggest the critical need for quantitative instruments that are more inclusive of diverse populations and contextual factors.

Keywords: Critical Consciousness, Social Justice Educational Leadership, Appalachian Education, Principals and Assistant Principals

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The International School Leadership Development Network developed a conceptual framework of social justice leadership, which reveals the complexity of the context in which social justice leadership is occurring (Zhang, et al., 2018). The context of social justice leadership includes a sociocultural dimension, the school community, school specific context, socio-political discourse and the school leader's lived experience and identity (Oldham et al., 2020; Zhang et al., 2018). The extant research reveals that an educational leaders' critical consciousness of students' sociocultural and socio-political background is vital for socially just leadership (Thompson, & Catapono, 2017; Zembylas & Iasonos, 2017; Zhang, et al., 2018). According to Radd and Grosllans (2018) the critical consciousness of a leader is "as an active and persistent state of awareness that consistently seeks to unearth the taken-for-granted, and examine it for the ways that it masks institutionalized inequality, privilege, and oppression" (p. 414).

The extant literature emphasizes the influence of the school's context on an administrator's decisions (Li, et al., 2018; Oldham et al., 2020; Roegman, 2017). Additionally, leaders should also be introspective about their own identity and experiences and the biases and prejudices they possess (Thompson & Catapono, 2017; Zembylas & Iasonos, 2017) and how that can influence their leadership praxis (Liu et al., 2018; Oldham, et al., 2020; Roegman, 2017). According to Klar et al. (2020) context-responsive leaders "leaders demonstrated an acute sense of contextual literacy, which they utilized to both react to and proactively shape their contexts" (p. 66).

This study involves principals and assistant principals of Kentucky schools in Appalachian¹ counties. Appalachian people have been stereotyped as "uneducated hillbillies and mountain people" (Chavira-Prado, 2018, p. 9) and have experienced a great deal of poverty throughout the region's history. Appalachia's long history of economic woes (ARC, 2019b), deficit stereotypes (Chavira-Prado, 2018), and higher than the average rate of children living in poverty (Wright et al., 2016) constitutes it as a context that could create insight into how the personal experiences of school leaders and the school context affect the perceptions of social justice leadership of school administrators.

Literature Review

Since the Great Recession of 2008, 1 in 4 children in rural communities in the United States is living in poverty (USDA, 2019). This study focuses on the context of Appalachia² where the poverty rate is 16.3% compared to the national average of 14.6% (Appalachian Regional Commission, 2019b) and 80 of 420 counties in Appalachia are designated as economically distressed by the Appalachian Regional Commission (n.d. b) with the majority of these being in Central Appalachia (Kentucky, West Virginia, Virginia, and Tennessee). According to Wright, Cunningham, and Stangle (2016), "In West Virginia and Kentucky in particular, 1 in every 10 children live in extreme poverty or below 50 percent of the poverty line" (p. 1). Minority students in Appalachia, as throughout the United States, are also identified as a gap population (Wright, et al., 2016). Although the majority of Appalachia is white, the minority population in the region has grown from 16.4% in 2010 to 18.6% in 2017 (Appalachian Regional Commission, 2019a), and ultimately translates to growth of minorities within Appalachian school districts.

¹ Appalachia is a 205,000-square-mile region that follows the spine of the Appalachian Mountains from southern New York to northern Mississippi. It includes all of West Virginia and parts of 12 other states: Alabama, Georgia, Kentucky, Maryland, Mississippi, New York, North Carolina, Ohio, Pennsylvania, South Carolina, Tennessee, and Virginia" (Appalachian Regional Commission, n.d. a, para. 1).

Critical Consciousness and the Importance of Context

Paulo Freire (2000), conceived critical consciousness as “learning to perceive social, political, and economic contradictions, and to take actions against the oppressive elements of reality” (p. 35). Educational leaders must be acutely aware of the social, political, and economic structures which create inequalities within their schools and their communities (Brown & Evans, 2017; Dodd, 2017; Mattheis, 2017). Additionally, critical consciousness includes understanding and confronting biases, prejudices, and deficit thinking (Bertand & Rodela, 2017; Thompson & Catapono, 2017). The critical consciousness of school administrators is crucial because the effective implementation of equity and social justice in schools will be ineffective without the practice of such skills by leadership (Brooks et al., 2017).

Critical consciousness is a deliberate act of a leader to better educate themselves about the lived experiences of students and families so that they can ensure an education that will meet the unique needs of each pupil (Feng & Chen, 2018; Zang et al., 2018). Leaders with an awareness that students’ social habitus affects their perceptions of their school, community, and the opportunities they believe are achievable (Klar et al., 2020). Thus, they are not only aware of these inequalities, but they also model their behaviors and the structures of their schools to ensure the equitable treatment of all students. Research has shown that educational leaders are the most effective when they demonstrate critical consciousness and behave according to the needs of their students within their context (Zembylas & Iasonos, 2017).

The contexts of schools are shown by empirical research to have a strong effect on school outcomes include the socio-economic status of the student body, ethnic and social homogeneity, the dominant political and social ideologies of the community, and geographic location (Klar et al., 2020; Liu et al., 2018; Oldham et al. 2020; Roegman, 2017). Klar et al. (2020), in their study of two high-needs schools in the Southeastern United States, concluded that those schools were successful because principals exhibited contextual literacy and modified their knowledge, skills, and dispositions of leadership to their contexts. Roegman (2017), in her study of Superintendents, determined that studying “the overlapping contexts as a framework to look at similar situations through different lenses can further expand our understandings of what equity-focused leadership looks like” (p. 26).

In their study of distributed leadership, Liu et al. (2018) examined various school and principal characteristics in their data analysis. They discovered that the employment status of principals and the school’s funding resources were strong predictors of stakeholder involvement in schools (Liu et al., 2018). In their qualitative study of three U.S. principals, Oldham et al. (2020) found that principals named the community context as the main guidance of their practice as social justice leaders. Though there is an acknowledgement of the relationship between leadership and context, there are few extant research studies on social justice leadership praxis and the specific context of school administrators and their schools (Albritton et al. 2017; Klar et al., 2020; Oldham et al. 2020). Additionally, there are calls for more quantitative studies of social justice leaders and contextual factors (Oldham, 2020; Zhang et al., 2018) this study seeks to contribute to this body of literature.

Theoretical Framework

According to the International School Leadership Development Network (ISLDN) framework, to be a socially just leader, a person must be critically conscious of themselves as a product of their

context and personal experiences (Hernandez & Marshall, 2017; International School Leadership Development Network, 2013). Second, school leaders enacting social justice practices have an awareness of the effect of the complex contextual influences on their students, including sociocultural and socio-political factors (Feng & Chen, 2018; ISLDN, 2013; Zembylas & Iasonos, 2017). Third, as explained by Zembylas and Iasonos (2017), "Social justice leadership recognizes the important role leaders play in school development and transformation to benefit marginalized students" (p. 297). Furthermore, the ISLDN framework shows the leader can have a direct influence on two factors: the school community and school-specific context, which ultimately influences the greater context of the school (International School Leadership Development Network, 2013).

Purpose of the Study

The purpose of this study is to analyze the conditional relationship between contextual factors and the perception of social justice leadership of Appalachian Kentucky educational leaders. The research questions addressed by this study are:

1. Which of the predictor variables of school context (Title I status of the school, the grade-level of school) is influential in the perception of a school administrator's social justice leadership?
2. Which of the predictor variables of personal experience (years living in Appalachia, years of experience in leadership, and position) is influential in the perception of a school administrator's social justice leadership?

Method

In order to analyze the relationship between perceived social justice tendencies of educational leaders in Appalachia Kentucky and contextual factors, a quantitative approach was utilized. The Social Justice Leadership Questionnaire (SJQ2) served as the basis of the discernment of social justice leadership tendencies. Additional questions regarding other predictor variables (Title I status of the school, the grade-level of school, years living in Appalachia, years of experience in leadership, and position) were included to better understand the context of each respondent.

Participants

The population of focus in the study was principals and assistant principals of public schools within Appalachia Kentucky (Table 1). Kentucky is located in Central Appalachia, which is considered the most impoverished and most rural subsection of Appalachia (ARC, 2019b). The Appalachian counties in Kentucky range from rural to suburban (specifically, those counties near the Metropolitan areas of Lexington, Kentucky, and Huntington, West Virginia), which reflects two-thirds of the region considered Appalachia (Pollard & Jacobsen, 2017). The school districts in the region range in size from 311 to 11,821 students and vary from county-wide districts to Independent school districts (Kentucky Department of Education, 2019).

Table 1
Research Participants

Job Title		
	Principal	56
	Assistant Principal	42
Years of Administrative Experience		
	0-5 years	48
	6-10 years	25
	11-15 years	16
	16-20 years	4
	21+ years	5
Years lived in Appalachia		
	0-10 years	9
	11-20 years	6
	21-30 years	5
	31-40 years	17
	40+ years	61
Title 1 Eligibility		
	Title 1 and funded	80
	Title 1 and not funded	9
	Not Title 1 eligible	8
	Unknown Title 1 eligibility	1
Grade-level of School		
	Elementary (K-5/6)	27
	Middle school (6/7-8)	20
	High School	29
	P-8th	9
	P-12	3
	other grade combinations	10
Total Number of Participants		98

Instrument

Zhang et al. (2018) developed the SJQ2 from the ISLDN framework. They suggest that their instrument be implemented in a variety of school contexts to measure the perceptions of social justice leadership (Zhang et al., 2018). The Social Justice Leadership Questionnaire (SJQ2), is a series of 32 questions that were derived from a 74-question survey that Zhang et al. (2018) originally conceived but found to contain a lack of internal validity (Table 2). The subsections of the questionnaire are School Leader (SL), School Context (SC), Community Context (CC), and Policy Context (PC) (Zhang et al., 2018).

Table 2*Items in the SJQ2*

Section	Items
SL	<ol style="list-style-type: none"> 1. To me, social justice means taking care of the individual. 2. To me, social justice means providing opportunities to those who have been deprived of. 3. I am a person of strong persistent. 4. Education is to help kids find and follow their passions. 5. I have mentors who have influenced my growth as a principal. 6. I always think about how to give back to the community through education. 7. My family traditions shaped my attitudes toward education. 8. Being a principal takes a lot of my time and energy. 9. In my practice as principal, I must believe in kids and people. 10. I am passionate about my job. 11. The purpose of education is to build the character of my students. 12. I possess a high emotional intelligence. 13. I try to support people no matter who they are.
SC	<ol style="list-style-type: none"> 1. My staff and I have similar educational beliefs.* 2. Drug abuse is an issue among my students. 3. Everyone in my school recognized and believes in the mission of the school.* 4. My staff have good personal health and well-being.* 5. Alcohol abuse is an issue among my students. 6. I recognize the needs of my students.* 7. Bulling is a serious issue at my school. 8. Providing a lunch program is irrelevant to social justice.*
CC	<ol style="list-style-type: none"> 1. Household poverty is quite an issue in the community of my school. 2. The community served by the school is a transient one. 3. Criminality and/or street violence is an issue in the community. 4. Drug abuse, alcohol addiction, family violence, and/or mental health issues are common in the community.
PC	<ol style="list-style-type: none"> 1. The Department of Education, Early Learning and Culture is supportive in my operation of the school. 2. Large-scale assessment is helpful in evaluating educational quality of schools. 3. The Department of Education, Early Learning and Culture does not support me in my position as a principal.* 4. Most people I deal with in the Department of Education, Early Learning and Culture are not accessible.* 5. All the costs on large-scale assessment are not worthwhile.* 6. I feel that most educational policies on PEI are relevant to my school. 7. Large-scale assessment improved the quality of education in my school.

Note. Items with * are revise-scored.

The first portion of the survey emailed to participants requested the following demographic

information: years they have lived in Appalachia, years of experience as a principal or assistant principal, and their current position. The second set of demographic questions involved information about the school they serve in: Title I status and the grade-level of the school they serve. The third portion participants completed was the Social Justice Questionnaire (SJQ2) using a six-point Likert-scale (6 - strongly agree to 1- strongly disagree).

Data Analysis

Multiple linear regression analyses were conducted to answer the research questions of this study. Prior to conducting a multiple regression analysis, because the SJQ2 contains subsections, Cronbach's Alpha was performed to confirm internal consistency resulting in the following measurements: School Leader (SL) ($\alpha = .75$), School Context (SC) ($\alpha = .47$), Community Context (CC) ($\alpha = .57$), Policy Context (PC) ($\alpha = .71$).

To further investigate the potential cause for a low Cronbach's Alpha for the subscale of School Context, a Principal Component Analysis (Jolliffe & Cadima, 2016) was conducted in Stata. The analysis revealed that three components explained most correlations between questions. Initial eigen values indicated that the three components explained 26%, 24%, and 14% of variance respectively. The Varimax rotation revealed component 1 contained survey items SC2, SC5, SC7. Cronbach's Alpha was reevaluated on SC2, SC5, and SC7 which resulted in a Cronbach's Alpha of ($\alpha = .70$). The Varimax rotation revealed component 2 contained survey items SC1, SC3, SC4, SC6 with a Cronbach's Alpha of ($\alpha = .65$) so these items were discarded from the analysis to reduce the likelihood of a Type I error. Component 3, according to the varimax rotation was comprised of SC6, SC7, and SC8 and since SC6 and SC7 are cross-loaded on component 1 and 2 at $> 75\%$, component 3 items will be removed from the data analysis.

A principal component analysis was also conducted for Community Context and revealed that all questions were correlated with one component. Component one was comprised of all 4 items of the CC subsection reported on a 6-point Likert scale that explained 43% of the variance with factor loadings from .628 to .673. Thus, data from the subsection of Community Context was removed from the data analysis because a more robust Cronbach's Alpha could not be accomplished.

Analysis of Research Question One

The first research question to be addressed in this study concentrated on two school context predictor variables. Multiple linear regression was utilized to answer the research question and determine if the null hypothesis would be accepted or rejected (See Table 4). Before the regression analysis, an a priori power analysis was conducted in G*Power 3 (Faul et. al, 2007) to test the regression analysis with two predictor variables, the low effect size ($f^2 = .15$), Alpha of .05. The result showed that the total sample size of 68 participants was required to produce a power of .80. Since this sample contains 98 participants, it will provide sufficient power to lessen the chance of rejecting the H0 when H0 is false.

For research question one, the dependent variable was administrators' mean score on the SJQ2. The independent variables were the school context items of Title I eligibility and grade-level of the school the administrator served.

The multiple regression revealed that the model produced is not statistically significant in predicting the perceptions of these participants toward social justice leadership (Table 4), $F(7, 89)$

= 1.05, $p = .40$, $R^2 = .076$. Thus, with 95% confidence, the null hypothesis cannot be rejected for this population. No school context variables had a significant effect on the regression equation. However, stepwise regression was conducted on Elementary and Middle School administrators because they had the two lowest p-values.

Table 4

Multiple linear regression of SJQ2 scores: Title 1 eligibility and grade-level of schools

SJQ2 score	β	SE	t-value	p-value	[95% Confidence]		Sig
					LL	UL	
Not Title 1 eligible ^a	0.00						
Title 1 and funded	0.003	0.14	0.02	0.98	-0.28	0.28	
Title 1 and not funded	0.02	0.17	0.16	0.87	-0.32	0.37	
Elementary	-0.17	0.21	-0.62	0.54	-0.55	0.29	
Highschool	0.07	0.21	0.24	0.81	-0.37	0.47	
Middle School	-0.13	0.22	-0.53	0.60	-0.54	0.31	
P-12 ^a	0.00						
P-8	0.09	0.23	0.48	0.63	-0.35	0.57	
Other	0.06	0.23	0.29	0.77	-0.39	0.53	
Constant	4.65	0.24	19.13	0.00	4.17	5.13	***

Note. All answers were self-reported. “Other” denotes grade-level combinations that were not offered as options listed within the survey. Significant levels: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

^a The baseline subgroups in this analysis.

Stepwise regression was conducted to find a more significant model (See Table 5). The subsequent model has significance in predicting the propensity toward social justice leadership, $F(2, 94) = 3.69$, $p = .029$, $R^2 = .073$. An accurate prediction of SJQ2 scores can be made within this sample utilizing the following equation:

$$\text{Administrators SJL propensity} = 4.72 - .034(X_{\text{elementary}}) + .033(X_{\text{middleschool}}).$$

Table 5

Stepwise Multiple linear Regression of SJQ2 score: Elementary and Middle School administrators

SJQ2 score	β	SE	t-value	p-value	95% Confidence		Sig
					LL	UL	
Elementary	-0.19	0.08	-2.41	0.02	-0.35	-0.03	**
Middle School	-0.17	0.09	-1.95	0.05	-0.35	0.003	*
Constant	4.72	0.05	99.36	0.00	4.62	4.81	***

Note. Significant levels: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$; LL – lower level; UL – upper level.

For Elementary and Middle School administrators, the null hypothesis can be rejected. With a 95% confidence, this equation can accurately predict the social justice leadership

propensity of principals and assistant principals in Appalachian, Kentucky.

Elementary is significant at the 95% confidence level, and Middle School is significant at the 90% confidence level. Those who identify as an Elementary administrator will have a .034 SD decrease in predicted SJQ2 score, with the other variables held constant. For a Middle School administrator, their SJQ2 score has .033 SD increase, when the other variables are held constant. A regression of SJQ2 scores and Elementary was conducted but was not found to be significant at the 95% confidence level, $F(1, 95) = 3.47$, $p = .065$, $R^2 = .04$. Thus, the Middle School variable has an interaction effect on the significance of an Elementary leader's SJQ2 score.

Analysis of Research Question Two

The second research question to be addressed in this study focused on three personal context items as independent variables: years lived in Appalachia, years of experience as an administrator, and the participants' current position. The mean scores of the SJQ2 were used as the dependent variable in this analysis. Multiple linear regression was utilized to answer the research question and determine if the null hypothesis would be accepted or rejected (See Table 6).

Table 6

Multiple Linear Regression of SJQ2: personal experience predictor variables

SJQ2	Coef.	SE	t-value	p-value	95% Confidence		Sig
					LL	UL	
position	-0.17	0.08	-2.19	0.03	-0.32	-0.02	**
Experience 0-5	0.00	.	.	.	.	.
Experience 6-10	-0.05	0.11	-0.49	0.63	-0.26	0.16	
Experience 11-15	-0.01	0.19	-0.07	0.95	-0.39	0.36	
Experience 16-20	0.15	0.17	0.88	0.38	-0.19	0.49	
Experience 21+	0.08	0.10	0.81	0.42	-0.11	0.27	
Appalachia 0-10	0.00	.	.	.	.	.
Appalachia 11-20	-0.17	0.19	-0.91	0.36	-0.55	0.20	
Appalachia 21-30	0.01	0.20	0.06	0.96	-0.39	0.41	
Appalachia 31-40	-0.09	0.15	-0.56	0.58	-0.39	0.22	
Appalachia 41+	-0.05	0.13	-0.38	0.71	-0.30	0.20	
Constant	4.76	0.13	35.51	0.00	4.49	5.03	**

Note. Significant levels: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$; LL – lower level; UL – upper level.

The multiple regression revealed that the model produced is not statistically significant in predicting these participants' inclinations toward social justice leadership (Table 4), $F(9, 87) = .74$, $p = .67$, $R^2 = .070$. Thus, the null hypothesis cannot be rejected. However, the model does reveal a significant effect of position on SJQ2 scores with a difference in principals' score (.17 standard deviation decrease) compared to assistant principals within the model. An analysis of where these differences exist within the SJQ2 subscales, a visual comparison of means revealed that the largest difference in scores was in the School Context section with assistants average ($\bar{X} = 3.75$) and principals ($\bar{X} = 3.36$), a t-test revealed that the difference was significant $t(95) = 1.84$,

$p = .03$. Assistant principals were more likely to report that drug abuse was an issue among students ($\bar{X} = 4.00$) than principals ($\bar{X} = 3.73$). Assistant administrators also related that alcohol abuse was an issue among students ($\bar{X} = 3.71$) compared to principals ($\bar{X} = 3.29$). Additionally, assistants noted bullying as a problem among their students ($\bar{X} = 3.63$) at a higher rate than principals ($\bar{X} = 3.07$).

Given the position of a participant is significant ($p = .03$), a stepwise regression was conducted to see if, as a single predictor variable, it would show significance in predicting SJQ2 scores. The new regression divulged that position was not significant $F(1, 95)$, $p = .0593$, $R^2 = .037$ in predicting SJQ2 scores; thus, experience and years living in Appalachia do have some mediating effect (Mertler & Reinhart, 2017).

Supplementary Findings

The SJQ2, as designed by Zhang et al. (2018), was meant to contain a more expanded School Context section and four Community Context questions removed from this study due to internal inconsistency among this sample. To see if the inclusion of these deleted points of data would reveal any differences in the findings involving the research questions. First, as with RQ1, the overall model of SJQ2, Title 1 eligibility, and grade-level, including these extra points of data, did not improve its significance. Second, Elementary and Middle school administrators still had the lowest p -values and thus were included in a stepwise multiple regression (Table 7).

Table 7

Multiple Linear Regression of full SJQ2: Elementary and Middle School

SJQ2 full	β	SE	t-value	p-value	95% Confidence		Sig
					LL	UL	
Elementary	-0.20	0.06	-1.93	0.06	-0.23	0.003	*
Middle School	-0.21	0.07	-2.01	0.05	-0.26	-0.002	**
Constant	4.32	0.04	122.72	0.00	4.25	4.39	***

Note. Significance levels: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$; LL – lower level UL – upper level

The model is not significant, and the regression equation cannot accurately predict the propensity of social justice leadership, $F(7, 89) = 1.04$, $p = .41$, $R^2 = .075$, unlike in the section on RQ1. However, an interesting point of difference between the two equations in which grade-level has a significant effect. In the hypothesis testing for RQ1 (See Table 2), Elementary had a significant effect on SJQ2 ($p = .02$), while Middle school did not have a significant effect ($p = .05$). In the regression model produced by the full data of SJQ2, Middle School is the factor with a significant effect ($p = .047$) while Elementary does not ($p = .06$).

An analysis of the second research question resulted in a non-significant model. The main difference in including the data from the previously omitted School Context and Community Context questions was that position no longer had a significant effect on SJQ2 scores as it did in the hypothesis testing ($p = .08$).

The analysis of data collected from the sample of Kentucky Appalachian administrators resulted in an inability to reject the null hypothesis of research questions one and two. Though the equations formed through the inclusion of all the school context variables did not result in a significant predictive model, the model created from the stepwise regression involving elementary

and middle school administrators did result in an adequate equation. Thus, for research question one, the factors of being an elementary or middle school administrator in Appalachia did create a lower projected score than their counterparts of other grade-levels. The equation for research question two was also not significant in predicting scores, though the model did reveal that the position of the participant did influence SJQ2 scores, though only when in calculated with the other two personal experience variables.

Results

The data revealed that the school's Title 1 eligibility did not have a robust predicting force within Appalachia for the SJQ2 score. One possible explanation, as discussed in the literature review, is poverty's pervasiveness within the Central Appalachian region where these administrators work (Appalachian Regional Commission, 2019b; Wright, et al., 2016). Even though their school might not be in an area of high-concentrated poverty, administrators still recognized that poverty was an issue within their community and, thus, for their students. The awareness of community poverty was further confirmed by the removed data from Community Context question 1 (CC), which addresses poverty as an issue within the community. The principals from Title 1 eligible and funded schools reported the highest average ($\bar{X} = 5.49$), while the Title 1 eligible but not funded leaders averaged ($\bar{X} = 5.33$), and Not Title 1 eligible administrators' average was ($\bar{X} = 5.00$). The lack of substantial difference and high averages demonstrates that these principals and assistant principals are very aware of the poverty that pervades Central Appalachia. The evidence of this awareness means that administrators in Appalachia could be more prepared to move toward a critical consciousness of the lived experience of poverty of their students and enact changes that could address the obstacles that poverty can create for students (Brown & Evans, 2017; Dodd, 2017; Mattheis, 2017).

The stepwise regression conducted for research question one did reveal that being an Elementary or Middle School administrator did create a predictable model. The data also disclosed that this difference was primarily located in the School Context section of the SJQ2 scores. The school context questions involved in the hypothesis testing were SC2, SC5, and SC7. SC2 and SC5 deal with drug and alcohol abuse being an issue "among my students." Participants' interpretation of these questions as a student having a personal addiction problem is likely to be the reason for the low scores. The American Addiction Centers' (AAC) website (2020) reports statistics on adolescents from 12-17, (but not prior) and presents low rates of drug (3%) and alcohol abuse (1.8%). Substance abuse is a rare occurrence for younger students, which is reflected in the lower scores among administrators of these grade-levels.

Elementary and Middle School administrators' main difference in the school context section is how they rated bullying in their schools (SC7). Elementary principals average score for SC7 ($\bar{X} = 2.85$) while middle school leaders' average was ($\bar{X} = 3.75$). According to Kevorkian et al. (2016), one reason for this discrepancy between scores is a lack of awareness of bullying within elementary schools. The issue is two-fold. First, there is a lack of research involving bullying at the elementary level (Kevorkian, et al., 2016), which leads to a lack of information and resources on the reality of the problem of bullying among younger students. Second, a study by "Olweus (1993) [revealed], students feel most vulnerable to bullying in locations where there is the least amount of supervision" (as cited in Kevorkian et al., 2016, p. 267). Kevorkian et al. (2016) study of third through fifth graders in the state of Massachusetts revealed that 40% of students reported being bullied at school and more frequently experienced it on playgrounds. Another reason for the

difference in scores involving bullying could be due to successful anti-bullying programs within schools (Kevorkian et al., 2016). The exact reason for these differences needs to be explored further with additional studies of schools or interviews with administrators.

Since the significant differences between Elementary and Middle School principals and all other grade-level administrators are explained through the difference in these SC factors, overall, the grade-level of the school has little impact on the propensity of social justice leadership of these Appalachian participants. The data reveals that the students' age and grades do not influence whether the administrators' SJQ2 scores. It is promising that the students' age does not show a significant impact on administrators' tendency toward social justice leadership. One age group of students is not more likely to experience social justice leadership than another group. All administrators, no matter what grade-level they serve, show potential for social justice leadership. One notable revelation is how substance abuse and bullying become more overt and easily recognized among older students and acknowledged as an issue among administrators. The difference signals administrators and researchers' need to look more in-depth at these school context issues within Elementary and Middle schools.

The second research question pursued an analysis of personal experience predictor variables such as position, experience in administration, and years the participant lived in Appalachia. The analysis did not create a predictive model; however, the predictor variable of position was significant ($p = .03$) within that model. The data analysis revealed a significant difference between the scores of assistant administrators and principals on the School Context subscale.

There are a couple of explanations for this phenomenon. First, as seen in the assessment of RQ1, Elementary and Middle School administrators also have lower scores in the SC subsection. Most assistant principals ($n = 28$) report working in schools other than elementary or middle schools, while most principals in this study report that they work in either an elementary or middle school ($n = 33$). Additionally, the difference in scores could be the reduced rate of describing drug and alcohol abuse and bullying as issues among younger students. Second, it could be because of the nature of many assistant principals' role as primarily "responding to student misbehavior and supervising of student activities" (Houchens et al., 2018, p.40). In other words, assistant principals tend to have more interactions with students and, thus, may be more critically conscious of the issues reported in the SC section due to this proximity students. The data analysis of RQ2 revealed that position was not significant on its own in predicting SJQ2 scores. Thus, experience and years living in Appalachia have some effect on the significance of the difference between principals and assistant principals.

The highest over-all average for SJQ2 was a principal with 0-5 years of experience who has only lived in Appalachia 0-10 years. Since there is only one participant within this range, their score might not be a good predictor of the population. The second-highest average SJQ2 score was a principal with 6-10 years of experience who has lived in Appalachia 31-40 years. However, there is only one participant in this grouping; thus, they might not represent the entire population. The third highest score was five assistant principals with 6-10 years of experience and who have lived in Appalachia 41+ years.

Since there are multiple participants in this group, the researcher believes some inferences can be made. First, assistant principals with 6-10 years of experience and who have lived 41+ years in Appalachia have higher than average SJQ2 scores than the collective subgroups of other assistant principals with the same experience and years living in Appalachia. These same participants also have a much larger average score than the eleven principals ($n = 11$) with the

same years of experience and years living in Appalachia. The combination of their experience within their position and their experience living a large proportion of their life in Appalachia appears to make this group more prone to social justice leadership.

A potential explanation for this combination is the redesign of principal preparation programs in the state of Kentucky in 2011. Those who have completed their training since the redesign are more likely to have participated in programs that “Expose[d] candidates to diverse student populations and school environments” (Education Commission, p.6). Educational leaders within the 6-10-year experience range are likely to have received this exposure and training. Also, it seems that living in Appalachia most of their lives (41+ years) paired with principal preparation programs that include diversity training has allowed them to be aware of the issues pervading the schools in the region. Since the participants are at least 41, and if they began teaching at 22, they began their assistant principalship approximately 9 – 13 years into their teaching career. Thus, they spent more time in the classroom. Some researchers argue that leaders who spent more time in classrooms have a greater inclination toward social justice education because of a potential increase in promoting instructional practices and addressing classroom needs (Shaked et al., 2017). The researcher recommends that further research into this phenomenon may help in determining more reliable conclusions.

The results of RQ2 analysis divulges that a person’s experience level does not have a strong influence on their propensity toward social justice leadership. A new principal is just as likely as a veteran administrator to have a tendency toward social justice leadership. The data also exposed that living in an area for an allotted amount of time does not significantly affect the tendency toward social justice leadership. A person new to a school community has an equal amount of likelihood to enact social justice leadership as someone who has lived in the community. The duration of living in a particular context does not necessarily make a person more aware of the injustices within their community than someone with an outsider perspective. Schools recruiting administrators to be change agents can feel confident about hiring people from outside their community, knowing that they can still have the same propensity for social justice leadership as someone from within their community.

Discussion and Limitations

First, the Community Context (CC) section with only four questions did not accurately provide a snapshot into the community of the schools of Appalachia. It lacked the internal consistency to be included in the study. The lowest average for this section was CC3 “Criminality and/or street violence is an issue in the community” (Zang et al., 2018, p. 74) ($\bar{X} = 3.14$), and it had the most substantial standard deviation (1.97). The statistics of this question reflect the varying degree of criminality throughout Appalachian Kentucky communities. According to the Kentucky State Police 2018 Crime report (2019), the proportion of crimes varies significantly throughout the Appalachian region, depending on the type of crime committed. Those counties in Appalachia with higher populations, such as Boyd, Clark, Laurel, Madison, and Pulaski, tend to have a higher proportion of violent crimes compared to other Appalachian counties in Kentucky (Kentucky State Police, 2019). It is also possible that the term “street violence” was a determining factor in the response of participants since the term can be interpreted as being contextual to urban communities.

The SJQ2 also lacked questions in the CC subsection about unemployment or underemployment and lack of higher education of parents, which are issues in Appalachian Kentucky and many areas throughout the United States with higher levels of poverty (Wright et

al., 2016). The section involved zero questions on socio-cultural identities, such as religion, ethnicity, English as a Second language, and abilities, and Lesbian Gay Bisexual Transgender and Questioning (Özdemir, 2017). Another issue was the absence of questions about community involvement in the school, which the literature revealed as a critical element in the enactment of social justice leadership (Bertrand & Rodella, 2018)

The second issue was in the lack of socio-cultural questions in the School Context section of the SJQ2. Though the issues of poverty, substance abuse, and bullying are universal in schools, students and staff are not homogeneous when it comes to their faith, ethnicity, LGBTQ identities, English-speaking proficiency, or their abilities. A more socio-culturally-inclusive survey could reveal more about the real propensity of a sample or population toward social justice leadership.

The final issue with the survey instrument is its deficiency in queries of actions taken by the participant. The survey deals mostly with the awareness of issues but not the actions required to deal with injustices. Being aware that injustices exist does not necessarily translate to a person taking actions toward dismantling systems of oppression. According to Brown and Shaked (2018), successful leaders “make the shift from personal awareness to social action (Freire, 1973), realizing that respect for diversity entails advocacy, solidarity, an awareness of societal structures of oppression, and critical social consciousness” (p.15). According to the extant literature reviewed for this study, questions involving the shared leadership between administrators, teachers, parents, and the community would signal social justice leadership. Questions involving the active inclusion of differently-abled students in mainline classrooms, ensuring the safety of LGBTQ students, providing services to ESL students, or restorative justice practices are just a few examples of what could be included to measure social justice leadership of administrators better.

Implication for Further Study

The current study reveals the need for further study into a variety of aspects of the social justice leadership of Appalachian administrators. There is very little extant literature exploring issues specific to schools within the Appalachian region. Since the Appalachian region is comprised of both urban and rural communities, with a varied dispersion of minority students, and the highest poverty rate of any region in the United States (Appalachian Regional Commission, 2019c; Wright et al., 2016) studies focused on the region may provide a better snapshot into the broader population of schools, administrators, and students throughout the United States. For this reason, Appalachian schools should be of equal focus to research into social justice leadership and pedagogical practices as their urban counterparts.

This study also revealed a possible need for a new quantitative instrument that measures the awareness of social justice issues, as the SJQ2 does, but that focuses on social justice actions. As previously stated, there is a difference between awareness of social injustices and systems that disadvantage students in schools and the praxis of social justice leadership (Brown & Shaked, 2018). That is, there may be a need to understand what actions denote a more accurate gauge of social justice leadership. The potential new instrument may also need to be more inclusive of socio-cultural identities among students to measure the social justice issues pervasive in society and schools. Finally, possible new studies may need to be conducted to create a quantitative instrument that would provide a consistent and reliable measurement of educational leaders' social justice tendencies.

Conclusion

The findings of this study may expand upon previous scholars' work by examining social justice leadership among administrators in rural Appalachia. This investigation revealed that when all school context variables (Title 1 eligibility and grade-level) were compared, no factors were statistically significant, and a significant predictor equation was not created. However, an analysis of only Elementary and Middle School administrators resulted in a statistically significant model. That is, the researcher found that Elementary and Middle School administrators had scores that were predictably lower than principals of other grade-level schools because they were less likely to report that bullying and substance abuse was an issue among their students.

This study also revealed that the predictor variables of personal experience (position, years of experience, and years living in Appalachia) were not significant in predicting the social justice propensity of Appalachian administrators. Conversely, the participants' position had a significant effect within the model in predicting SJQ2 scores, with assistant principals having a higher average than principals. As a possible explanation, the researcher felt their proximity to students through their role with discipline and as supervision of student activities was a possible factor. However, further examination may reveal the reasons for the differences between principals and assistant principals.

Finally, the study ultimately shed much needed light on the need for further research to develop a quantitative survey instrument to measure administrators' social justice leadership in a broader context. The SJQ2's creation was focused on a specific context and proved insufficient in measuring the Community Context and some aspects of School Context accurately in rural Appalachia. The development of a social justice leadership instrument may require more inclusive and expanded questions as well as the possible need to test in a variety of contexts to garner a more consistent and validated instrument.

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Influence of Student and Instructor Characteristics in Online Student Success

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The purpose of this non-experimental, quantitative case study was to compare the academic success of community college students over three academic years (2016-17 through 2018-19) before the onset of Coronavirus Disease (COVID-19) based on final grades and the influence of student factors, class size, and faculty characteristics using archival data from selected online and on-ground classes at a Middle Tennessee community college. Female students, part-time students, and non-traditional students were more likely to be successful. Successful students were generally more likely to be taught by full-time faculty and tenured faculty.

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Even though overall higher education enrollment is decreasing, online course demand has continued to increase in the past few years. According to Seaman and Seaman (2017), the consistent higher education enrollment increases that had been occurring for many years have stalled. From fall 2012 through fall 2015, total higher education enrollments decreased (Seaman & Seaman). Conversely, a higher percentage of students have registered for online courses during this same timeframe (Seaman & Seaman, 2017). Because of the increased attractiveness of online courses to students, institutions may need to place additional emphasis on the multiple factors that lead to successful online course completion. With the decline in enrollment, completion becomes even more vital to continue the pipeline of providing a credentialed workforce to employers.

Statement of the Problem

For 14 consecutive years, online course enrollment has been accelerating (Seaman, & Seaman, 2018). Online course demand continues to grow, especially in community colleges; by 2017, almost 31% of community college students register for a minimum of one online course as compared to 29% at public four-year higher education institutions (Lederman, 2018). Most students registering for at least one online course were also registered for at least one on-ground course (Seaman & Seaman, 2018). With many students making the choice to pursue courses online, administrators should address appropriate instructional quality and holistic online student support systems to meet retention goals.

Throughout the last decade, researchers have performed several studies analyzing factors contributing to online student success. Most of these focus on characteristics of online students and their subsequent course retention and attrition. Although these are important research questions to answer, administrators still face questions of how to reduce the significant gap between online and traditional student success while meeting the increased demand to offer more online courses (Allen & Seaman, 2015). This gap varies among courses. Student traits, demographics, and profiles are frequently studied to identify student characteristics more likely to be unsuccessful, yet faculty characteristics should also be assessed to determine the significance of the role faculty play in both the success and the lack of success of the online students. Faculty, as a variable, has been notably concealed or even absent in many previous studies (Hutto, 2013; Martin, 2017; Tinto, 2006). Logically, student involvement and engagement at the institution are largely attributed to student affairs personnel. Yet, most community college students hold jobs and generally do not live on campus; thus, faculty teaching in the classroom may be the only opportunity for student engagement and involvement (Tinto, 1999). Determining the factors responsible for student success and attrition rates will assist administrators when making decisions regarding competitive academic demands (Kane et al., 2015).

The purpose of this non-experimental quantitative case study was to compare student academic success over three academic years before the onset of Coronavirus Disease 2019 (COVID-19) based on final grades and the influence from student and faculty characteristics using archival data from selected online classes at a Middle Tennessee community college. Student factors reviewed include gender, full-time or part-time status, and age (traditional or non-traditional status). Instructor characteristics reviewed included full-time or part-time (adjunct) teaching status and tenure or non-tenure status of faculty.

The predictor variables were either a student or faculty characteristic. The criterion variable was student academic success; student academic success was generally defined as a final course grade of A, B, or C. A grade of D was unsuccessful in this study. Where individual letter grades

were reviewed, F, FA, and W grades were combined. At the participating institution, the difference in an F and an FA grade is attendance; students who fail due to not attending after two-thirds of the course is completed are automatically assigned an FA grade instead of an F. Either grade signifies the student failed the course; the difference lies in the reason for the failure. The selected classes were English, history, and the natural sciences; these disciplines were chosen because they are required by most degree-seeking students at the college, have been developed for online delivery by a full-time faculty member, and are then cloned to others teaching the class, and have the same student learning outcomes (SLOs) as the corresponding on-ground classes.

The following research questions guided this case study:

- For online students, is there a significant difference in the proportion of students successfully completing the course (grade of A, B, or C) between female and male students at the participating community college?
- For online students, is there a significant difference in the proportion of students successfully completing the course (grade of A, B, or C) between full-time students (taking 12 or more credit hours) and part-time students (taking fewer than 12 credit hours) at the participating community college?
- For online students, is there a significant difference in the proportion of students successfully completing the course (grade of A, B, or C) between traditional aged students (age under 24) and non-traditional aged students (age 24 and over) at the participating community college?
- For online students, is there a significant difference in the proportion of students successfully completing the course (grade of A, B, or C) between the courses taught by tenured or non-tenured full-time instructors at the participating community college?
- For online students, is there a significant difference in the proportion of students successfully completing the course (grade of A, B, or C) between the courses taught by full-time and part-time (adjunct) instructors at the participating community college?

Theoretical Frameworks

Two theoretical frameworks helped form the research questions for this study. Building on several earlier retention theories, Bean and Metzner (1985) asserted that the sense of belonging was not as essential to non-traditional students. Bean and Metzner stated that environmental variables, academic variables, background variables, and psychological variables greatly impacted student attrition rates. Background variables such as gender, enrollment status, and age were pinpointed in their theory, among others. Tinto (2006) emphasized that faculty are the key players in student retention efforts. Tinto suggested most faculty believe retention is a product of student affairs efforts. Tinto purported that student retention is an outcome of robust student learning.

Literature Review

Prior to online instruction, a variety of distance education courses were offered. These included correspondence courses, radio courses, and television courses. The first attempt to provide a correspondence course was in 1728, when shorthand lessons were offered in England (Kentnor, 2015). Correspondence courses were also widely used in the 1920s; with these courses, the higher education student's only obligation was to have a mailbox (Caruth & Caruth, 2013). Class assignments were sent to students, and students subsequently returned completed assignments. Radio courses also started in the 1920s with lectures broadcast to students (Caruth & Caruth, 2013;

Casey, 2008; Kentnor, 2015). Television courses were offered in the 1930s, but they did not ever become a significant volume distance education medium (Kentnor, 2015). Online instruction is the current distance education medium that continues to experience growth.

Online instruction, a form of distance learning, could still be considered in its early stages in higher education institutions. Origins of online instruction were first available in the proprietary colleges (Thelin, 2011). In 1989, the University of Phoenix offered the first online higher education courses (Kentnor, 2015). Public higher education institutions started online programs in the mid-1990s (Casey, 2008; Kentnor, 2015). Online instruction's primary purpose in higher education is to provide greater student access. Access barriers that are dissolved through online instruction primarily include transportation, non-traditional work schedules that do not fit the traditional on-ground class schedules, and lack of childcare which precludes students' ability to attend on-ground classes.

Student Gender as a Predictor of Student Success

Gender researchers netted a wide variety of results. Some on-ground researchers had different results than the online researchers, and the same gender did not show significantly different for all researchers. For the on-ground delivery method, Huh et al. (2009) revealed that males tended to do better than females. In contrast, Gregory (2016) documented significant differences in final grades based on gender for on-ground classes; females proved statistically more likely than males to earn A or B grades in this research. Wladis et al. (2015) insists that females outperformed males on-ground in a community college STEM study.

While several researchers revealed gender as an indicator of online student success, this was not the case in all studies. Huh et al. (2009) indicated gender did not account for a significant difference in online and on-ground learners. Yukselturk and Bulut (2007) observed that gender did not have an effect in online class success in their single-year study of 80 student volunteers who were enrolled in an online computer science course. Krajewski (2015) reiterated that gender showed no significance in online class success in the study of a single biology course from a community college. Gregory's (2016) research at a single community college did not show any gender significance in online classes. While Wladis et al. (2015) found that females performed better on-ground than males, this difference was not present when courses were taken online.

Despite some researchers who did not find a significant difference in gender, other researchers did find females were significantly more likely to achieve online student success. Aragon and Johnson's (2008) research is an example of one such study which involved approximately 300 students from a single community college. Findings indicated significance in gender with females completing at a higher percentage than males; the results showed a low inverse correlation (Aragon & Johnson, 2008). James et al. (2016) repeated Aragon and Johnson's findings of slight gender significance in their study in which women were retained marginally more than men. Also interesting to note, James et al.'s study concluded that women registered for online classes at a higher percentage rate than men. Vella et al.'s (2016) research findings attest to gender significance in online class final grades. In this study, females showed both better final course grades and an increased likelihood of finishing the course. Vella et al.'s study was not only researching fully online classes, but also used data from blended classes. Cunningham (2015) discovered that female students generally exhibited greater course success than males in online courses; females showed a predictor of making a B rather than an F final grade. While this was a small case study using only a single class, the results substantiate several other findings

(Cunningham, 2015). Faidley (2018) also documented a gender difference in the public university study of two accounting courses. In this research, online outcomes resulted in a significant difference, with females ranking higher in this study with over 500 participating students (Faidley, 2018).

Student Full-Time or Part-Time Status as a Predictor of Student Success

Interaction of student course load with GPA is another critical area that needs further research (Shea & Bidjerano, 2019). Research, using data from 30 community colleges in New York, did not yield the typical expectations. Incorporating a sample of over 45,000 students, Shea and Bidjerano's (2019) data showed that part-time students with lower GPAs had an increased likelihood of completing degree requirements over corresponding full-time students with lower GPAs. An important fact to note is that this study examined the student's total online course load (Shea & Bidjerano, 2019). Vella et al. (2016) corroborated these findings in their one-semester study which included hybrid courses. Part-time students in this university study of over 2,000 students proved to do better than their full-time student counterparts (Vella et al., 2016). In Gregory's (2016) study, full-time students showed significantly more C and F grades.

Colorado and Eberle (2010) contradicted the previous findings in their study of university online graduate students. Researchers concluded full-time or part-time status did not influence academic performance (Colorado & Eberle, 2010). Wojciechowski and Palmer (2005) also affirmed this conclusion in their research of community college business students. Reviewing almost 200 students over three years, the researchers detected no significant difference in full-time or part-time status (Wojciechowski & Palmer, 2005). Some researchers had different results than any of the aforementioned conclusions. Krajewski's (2015) study of approximately 700 students' data from a single community college biology course discovered that full-time students were much more likely to complete the course than part-time students. In fact, the data indicated that part-time students were 2.1 times less likely to complete (Krajewski, 2015).

Student Age (Traditional or Non-Traditional) Status as a Predictor of Student Success

Most research studies reviewed indicated that a student's age did project a clear indication of online course success. The more advanced aged students typically had higher online course outcomes. Yukselturk and Bulut (2007) noted that age did not factor into student success in their study of online computer programming students from a university in Turkey. Some interesting facts about this study were that it involved 80 student volunteers from a single semester (Yukselturk & Bulut, 2007). More longitudinal data with a larger sample size may be needed to support this thesis. This is in contrast to several other studies notably Cunningham (2015), Faidley (2018), Gregory (2016), Vella et al. (2016), James et al. (2016), and Wojciechowski and Palmer (2005).

Disputing these studies, online business students in Wojciechowski and Palmer's (2005) research reflected that students generally received higher grades by age. Put another way, the older students, typically called non-traditional, generally received the higher grades. Approximately 200 students at a community college participated in this study (Wojciechowski & Palmer, 2005). Although this research only included a small sample from a single course at one institution, findings exhibited corresponded to several other studies. Faidley (2018) concluded significant differences in traditional and non-traditional students. In fact, non-traditional students proved to

have higher rates of student success (Faidley, 2018). Using over 500 students, Faidley's research was conducted over a three-year period but only used data from two introductory university accounting courses.

Vella et al. (2016) maintained that age did affect grades and success in the online course. In this research, older students (non-traditional) displayed better grades than the younger students. This one-semester study included over 2,000 university students taking both fully online and hybrid courses (Vella et al., 2016). Gregory's (2016) research identified non-traditional students as being less likely to fail a class than their traditional student counterparts. Subsequently, non-traditional students generally made more A grades (Gregory, 2016). Parallel to Gregory's study, Cunningham (2015) contended that online non-traditional students were slightly more prone to receive a course grade of A or B than traditional students. Research initiated from one community college using a single course with over 1,100 students participating in the study (Cunningham, 2015).

Wladis et al. (2015) observed similar findings in a study of 3,600 community college students from science, technology, engineering, and math (STEM) majors. Grades of C- and higher labeled the students as successfully completing the course. Corresponding courses, instructors, and semesters were compared to determine online and on-ground outcomes. According to Wladis et al.'s research, non-traditional aged students did better online than on-ground. Comparably, James et al. (2016) declared non-traditional aged students were more likely to be retained than traditional students in their five-state community college study with over 9,000 participants. Krajewski (2015) concurred with the aforementioned findings. Processing six semesters of community college data from a single biology course, Krajewski found significance for age. This researcher, with almost 700 participants, postulated every year of age produces a 1.1 times larger chance of online course completion (Krajewski, 2015).

Faculty Full-Time or Part-Time Status as a Predictor of Student Success

Magda et al. (2015) reported fall 2013 data from the U.S. Department of Education showing adjunct faculty taught approximately 31% of online courses at both two-year and four-year institutions. Subsequently in 2015, 56% of institutions disclosed growth in the percentages of adjuncts teaching online with 25% reporting a growth rate of at least 5%. Adjuncts are teaching in many different disciplines; however, business boasts the largest overall percentage of online adjunct instructors. Combined with the increase in online instruction demand, institutions must find and use best practices for aiding adjunct faculty in successful online instruction (Magda et al., 2015).

In reviewing adjunct faculty online instruction regarding attrition rates, several researchers compared adjunct and full-time faculty course outcomes. Fewer studies specifically revealed the difference in adjunct and full-time faculty for only online classes. As a result, some of the research mentioned below are not specifically studies of adjuncts teaching online courses; some are the results of studies in which researchers compared on-ground instruction outcomes between adjuncts and full-time instructors. These studies from a different delivery method are included to demonstrate the impact adjunct teaching in general has on student attrition rates. While the delivery method does account for some differences in attrition rates, the same is true for the student attrition rates when the course is taught using a different delivery method by full-time faculty.

Several researchers have provided historical data on the difference in student outcomes based on the course being taught by an adjunct faculty or a full-time faculty member. Hutto (2017)

addressed the connection between course retention and faculty status for general education classes at a Florida community college during a single semester. According to this researcher, one of the reasons for increased student retention rates has been linked to adjunct faculty (Hutto, 2017). Hutto's short-term study results confirmed the researcher's hypothesis of a correlation between full-time and adjunct faculty on student attrition; this study revealed that adjunct faculty showed a slight increase in course retention over full-time faculty. Hutto's study compared on-ground course results.

Some other researchers did not find significant differences in student success. Flaherty (2013) compared adjunct and full-time instruction's influence on student success. Findings chronicle no significant differences in adjunct and full-time instruction at community colleges. Institutional data were derived from the Integrated Postsecondary Education Data System (IPEDS), making this research a national-level study as opposed to others which are generally only done at a local or regional level. Xu concedes that a weakness in this study is that students were not matched to full-time or part-time instructors to consider the percentage of time spent with each group (as cited in Flaherty). This study was not limited to any particular delivery method (Flaherty, 2013). Landrum (2009) addressed the increased use of adjunct faculty by studying full-time and part-time university faculty to determine if significant variances in demographics, student evaluations, and grade distributions were found. According to the research, significant variances did not exist. An important note on this study is that it reviewed overall instruction; this study was not confined to reviewing exclusively online classes (Landrum, 2009). Salley and Shaw's (2015) findings expressed interchangeable results. Data from a Midwest community college from one semester advanced the idea that full-time and adjunct faculty do not have significant differences in final online student course grades or attrition. These data were taken from 189 full-time and adjunct faculty members (Salley & Shaw, 2015).

Other researchers also revealed full-time faculty yielding greater student success than adjuncts. Mueller et al. (2013) studied adjunct and full-time faculty online student success rates. Results showed higher course grades from the online course sections taught by the full-time faculty members. It is important to note this was not a longitudinal study at multiple institutions in a variety of courses; this study only used a single course with all sections being taught online from a single institution. Mueller et al. suggested the need to look further into the impact of adjunct instruction on students. Ran and Xu (2019) verified the findings of Mueller et al. (2013) that students taking introductory courses in their chosen discipline from non-tenure track faculty were both unlikely to enroll in a subsequent course in that discipline and reduced the subsequent grade earned. This was in spite that the initial introductory student course grade was generally higher with a non-tenure track faculty member. Ran and Xu's study was not confined to online only classes; the research did span five years, include both two- and four-year institutions, and assessed over 155,000 students.

Whether or not adjuncts teach online, they must feel engaged and as if they are an integral part of the institution. This connection helps improve the fulfilment of their job duties. Most administrators seem to ensure adjuncts have the information needed to do their jobs, but they do not always ensure the appropriate institutional networks welcome and foster adjuncts (Dolan, 2011). Dolan's qualitative research examined online adjuncts' views on the communication and collaboration received from the institution, and the results of the study suggested that colleges providing the right communication and support systems can positively motivate adjuncts and result in subsequent increased student retention and completion in online classes. This research further supported Green et al.'s (2009) study that reported a continuous sense of community was vital to

all online instructors. Adjunct, non-tenured, tenure track, and tenured faculty had some differing reasons for participating in online teaching according to one study (Green et al., 2009). The researchers showed that most motivating factors to teach online were similar among the various faculty ranks. Some of the reasons they choose to teach online result from their core satisfaction of teaching, challenge, job progression, and flexible work times (Green et al.).

Faculty Non-Tenure or Tenure Status as a Predictor of Student Success

In addition to the faculty member's adjunct (part-time) or full-time status, faculty non-tenure and tenure status and years of teaching experience should be considered. Faculty move through faculty ranks as they become more seasoned; examining the progression along with how the number of years of experience affects performance can help to determine what faculty supports are needed and when are the best times to provide these supports throughout their careers. Continuous professional development is always needed for all professionals; the unique delivery method of online courses demands special attention for professional development needs.

According to Herman (2012), faculty ranks did show differences in the total number of hours of online teaching. Non-tenured faculty comprised 36.1%; faculty not on tenure track comprised 35.7%; and tenured faculty comprised 32.6%. Herman further reported that approximately one third of faculty are confident that online courses match the quality of traditional on-ground courses. Herman (2012) suggested all faculty need adequate professional development for achievement of continuous quality improvement in online courses.

McDaniel (2003) researched the effects of non-tenured and tenured faculty on course quality in the online environment. Results indicated that no significant difference existed between course quality based on the course being taught by a non-tenured or tenured faculty member. McDaniel conducted this study at a university with over 80 online courses from 14 different departments; furthermore, surveys from the faculty generated these results.

Ehrenberg and Zhang (2005) maintained their study was the first to determine the influence of non-tenure track faculty on subsequent student success. From College Board and other data, the researchers discovered that non-tenure track faculty could potentially reduce students' future likelihood of success. Class data were from all courses offered at the institutions studied over a period of fifteen years (Ehrenberg & Zhang, 2005).

Figlio et al. (2013) extrapolated data from Northwestern University regarding whether non-tenure track or tenure track faculty stimulated students to register for additional classes in a particular discipline and whether students performed well in the ensuing courses. In both instances, non-tenure track faculty showed considerably higher results than tenure track faculty. Data were from freshmen at Northwestern University over a seven-year period from all types of classes; over 15,500 students were part of this study. Not all the courses in this study were online courses; the study only referred to the courses in total (Figlio et al., 2013).

Methods

Instrumentation

Secondary data analyses were used for this study. Because archival data were used for this study, neither the students nor the faculty who were included in this research were aware of this study while the courses were being taught. Because the courses had already concluded prior to this study,

no opportunity existed for any potential behavior modification by either students or instructors that would manipulate the study results. No surveys or interviews were used. Data presented to me had been redacted; identifying information regarding participants was not provided. Data files were maintained on a password-protected computer to ensure proper confidentiality and security of the data received.

Population

The population for this study included all online and on-ground English, history, and natural science faculty and students enrolled at the census date from three consecutive academic years (fall 2016-summer 2019) at a Middle Tennessee community college. Students who dropped the course before the census date were deleted from the roster. Because the institution offers Associate of Arts, Associate of Science, Associate of Fine Arts, Associate of Science in Teaching, and Associate of Applied Science degrees along with certificates, students in this study were likely pursuing a wide variety of degrees; few students would likely be seeking a certificate because most certificates do not require these particular courses. These courses were selected because of their high number of student enrollments each semester and because they were required in most degree programs offered at the institution.

Dataset

Institutional data for this study consisted of 44,568 student records comprising 34,006 on-ground classes and 10,562 online classes. For the percentages provided, audit and incomplete or missing data were excluded. The mean grade point average (GPA) of all students with prior GPAs was 2.7 in this study. Unique student registrations totaled 13,400 students and unique instructors totaled 198. Further descriptive data from the institution and data used in this study for the academic years 2016-2018 are shown in Table 1.

Table 1

Demographic Online Course Data and Fall 2017 Institutional Data

	Online Courses – This Study	Fall 2017 Institutional Data
Female	72%	61%
Male	28%	39%
Full-Time	52%	50%
Part-Time	48%	50%
Traditional	68%	79%
Non-Traditional	32%	21%

Results

For online students, is there a significant difference in the proportion of students successfully completing the course (grade of A, B, or C) between female and male students at the participating community college?

Pass rates were found to have a significant difference based on the two gender levels,

Pearson $\chi^2(1, N = 10,562) = 7.788, p = .005$, Cramer's $V = .027$. Therefore, the null hypothesis is rejected. Females were found more likely in general to be successful in online courses than males. Table 2 presents the online student success percentages by student gender.

Table 2
Online Student Success Percentages by Student Gender

	Male	Female
Pass	75%	78%
Fail	25%	22%

For online students, is there a significant difference in the proportion of students successfully completing the course (grade of A, B, or C) between full-time students (taking 12 or more credit hours) and part-time students (taking fewer than 12 credit hours) at the participating community college?

Enrollment status of college students was found to have a significant difference based on the two levels, Pearson $\chi^2(3, N = 10,562) = 218.589, p < .001$, Cramer's $V = .144$. Therefore, the null hypothesis is rejected. Part-time students were generally more likely to be successful in online classes. Table 3 presents online student success percentages by student enrollment status.

Table 3
Online Student Success Percentages by Student Enrollment Status

	Full-Time	Part-Time
Pass	73%	82%
Fail	27%	18%

For online students, is there a significant difference in the proportion of students successfully completing the course (grade of A, B, or C) between traditional aged students (age under 24) and non-traditional aged students (age 24 and over) at the participating community college?

Age was found to have a significant difference based on the two age levels, Pearson $\chi^2(2, N = 10,562) = 181.331, p < .001$, Cramer's $V = .131$. Therefore, the null hypothesis is rejected. Most researchers reviewed had the same result. Non-traditional students were more likely in general to be successful than traditional students. Table 4 presents the online student success percentages by student age.

Table 4
Online Student Success Percentages by Student Age

	Non-Traditional	Traditional
Pass	83%	75%
Fail	17%	25%

For online students, is there a significant difference in the proportion of students successfully completing the course (grade of A, B, or C) between the courses taught by tenured or non-tenured full-time instructors at the participating community college?

Student success was found to have a significant difference based on the two faculty

employment status levels, Pearson $\chi^2(1, N = 10,562) = 172.570, p <.001$, Cramer's $V = .128$. Therefore, the null hypothesis is rejected. In my study, students generally had more success in online courses when taught by tenured faculty. Table 5 presents online student success percentages by faculty tenure status.

Table 5
Online Student Success Percentages by Faculty Tenure Status

	Tenured	Non-Tenured
Pass	82%	71%
Fail	18%	29%

For online students, is there a significant difference in the proportion of students successfully completing the course (grade of A, B, or C) between the courses taught by full-time and part-time (adjunct) instructors at the participating community college?

Online college student success was found to have a significant difference based on the two faculty employment levels, Pearson $\chi^2(1, N = 10,562) = 19.737, p <.001$, Cramer's $V = .043$. Therefore, the null hypothesis is rejected. Full-time instructors generally showed higher results than part-time instructors. Table 6 presents online student success percentages by faculty employment status.

Table 6
Online Student Success Percentages by Faculty Employment Status

	Full-Time	Part-Time
Pass	78%	73%
Fail	22%	27%

Discussion

Student success predictors were age, full-time/part-time status, and age. Females were more likely than males to be successful online in my study. This result aligned with the studies of Aragon and Johnson (2008), James et al. (2016), Vella et al. (2016), Cunningham (2015), and Faidley (2018). While all the literature did not agree, females did have more consensus than males. My study adds to this growing body of consensus. Part-time students showed a higher likelihood of success as indicated by Shea and Bidjerano (2019), Vella et al. (2016), and Gregory's (2016) studies. From the literature review, other researchers such as Colorado and Eberle (2010), Wojciechowski and Palmer (2005), and Krajewski (2015) had alternate results. More research is needed in this area. Non-traditional students were generally more successful than non-traditional students. With the exception of Yukselturk and Bulut (2007), researchers reviewed in the literature agree. More consensus is found in this area; however, one study reviewed did produce alternate results, leaving this area open for further research.

Faculty findings differed from previous research. My finding that tenured faculty generally produced higher student success contradicted most other research such as McDaniel (2003) and Figlio (2015). Ehrenberg and Zhang (2005) published the only other study reviewed in the

literature that produced similar results. With these findings, more research should be performed in this area. Full-time instructors generally had the higher success rates. Ran and Xu (2019) and Mueller et al.'s (2013) agreed. Several other researchers such as Hutto (2017), Flaherty (2013), Landrum (2009), and Salley and Shaw (2015) contradicted these results. Faculty online research studies in the literature are few; therefore, this is a result that needs further study.

Recommendations for Practice

Results of my study led to several recommendations for practice. These recommendations would be the most valuable to other community colleges of similar size and student characteristics. First, study both overall and disaggregated data to ensure all delivery methods are producing acceptable levels of student success while continuously making improvements. Second, examine broad faculty outcomes to determine professional development needs. For example, success gaps in faculty employment or tenure status should not be overlooked. Third, focus on building relationships with adjuncts and faculty with less experience through mentorship programs. Dolan (2011) and Green et al. (2009) indicated that developing a cohesive network among faculty and the institution is important to faculty, and subsequently student, success. Fourth, hold focus groups of students and faculty periodically to determine additional needs. Finally, establish timelines for faculty feedback to students and amount of engagement required for the course.

Recommendations for Further Research

After completing my study, I recommend the following mixed methods, qualitative, and quantitative areas for further research. First, survey students to find out the reasons they enroll in online courses, and evaluate the relationship between the reason for enrollment and student success. Second, evaluate the performance of students in subsequent courses when the pre-requisite courses were taken online. Third, study how institutions can best support part-time and non-tenured faculty in the process of their online teaching professional development. Fourth, research the student success measures that need to be offered to students taking online courses. Fifth, establish ways to apply diversity, equity, and inclusion principles to online classes. Sixth, determine the reasons students drop online courses and what measures can be taken to further support them. Seventh, assess the relationship of the amount of engagement in online classes between the instructor and student to the final course grade. Finally, conduct a qualitative study focusing on male online students to learn and examine possible reasons for their decreased levels of student success.

Conclusions

Students deserve the best support systems an institution can provide. To meet the goals of Complete College America and other initiatives for raising the level of postsecondary credential achievement, institutions must champion both students and faculty in all course delivery methods. Continuous assessment improvements and review of data are vital because results may change over time. Ongoing research will provide additional understanding to aid in the quest for online student success.

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Teacher and Administrator Perspectives from Experiences in the Teacher Leadership Initiative

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Teacher leadership has been defined by researchers as the catalyst for change, and the impetus for school improvement. In this study, the researcher investigated the experiences of teachers and administrators who participated in a nationwide teacher leadership pilot, the Teacher Leadership Initiative (TLI), and the effects that this yearlong event had on leadership, school improvement, and teacher and administrator professional practices. Unifying outcomes from the participants included changes in thinking about leadership that directly improved professional efficacy, collaborative and leadership skills, and a new sense of identification as a leader that was not experienced before the TLI.

Keywords: teacher leadership, educational leadership, teacher education and professional development, educational Assessment, evaluation and research.

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Teacher leadership was a pivotal component that emerged from the era of educational reform beginning with *A Nation at Risk* and exaggerated by the No Child Left Behind Act of 2001 as an answer to educational improvement. As related by Katzenmayer and Moller (2009), legislation was influenced heavily by extensive reports for improving schools and put educators at the forefront of accountability for student achievement. In addition, Katzenmayer and Moller (2009) described:

Massive reports on how to improve schools influenced policy makers to pass legislation to put pressure on educators to provide quality education for all students. Few disagree with this goal. Many would argue, though that the goals cannot be accomplished by simply raising standards, creating and implementing more outcome measures, and holding students, teachers, and administrators ever more accountable for test scores. (p.2)

The requirements of the NCLB Act of 2001 were a challenging feat for schools and districts to overcome with the reality of bringing every student regardless of prior background knowledge, socioeconomic status, and level of English language proficiency up to the expectations that were dictated by the law each year. Schools and districts with limited resources before the revision of the law in 2015, were seeking all solutions to the problems of students not meeting proficiency levels. Interventions and strategies for improving student proficiencies for schools and districts, began to focus more on meeting the requirements of the law and not about improving student learning and realizing academic success for schools.

Principals of schools not meeting proficiency levels, found themselves looking toward the mandates of the law instead of focusing intently on improving student learning for all students within schools and districts. Accountability measures were imposed on district leaders as well, solidifying these leaders' efforts toward meeting the expectations of the law for schools and districts instead of creating a sustainable plan for system-wide improvement. Developing and implementing strategies for school improvement requires time, resources, and consistency. Smaller school districts lacked in resources and retention of highly skilled personnel to support the changes needed to improve student learning district wide.

Research on the impact of the accountability movement (Darling-Hammond & Prince, 2007; Wechler et al., 2007) revealed that investing in teachers and their learning, rather than creating more tests is a better investment for improving student outcomes. Utilizing "excellent teachers as effective change agents to improve student learning through teacher leadership" can have a "measurable, positive effect on students, schools and the teaching profession" (Coggins & McGovern, 2014, p. 16) if teachers are given the opportunity to lead. The literature encompassing the concepts around teacher leadership has grown in substance since the 1980's with the emergence of standards and accountability in educational circles (Lai & Cheung, 2015). Leiberman and Friedrich (2010) and York-Barr and Duke (2004) reported that, over the past two decades, expectations for teachers have changed to include a role in improving education at the school level not just at the classroom level. Teacher leadership is not a new concept for teachers as they lead learning daily in their work to improve student academic abilities and encourage student success. What many teachers have not been exposed to or experienced is leadership outside the classroom in which they may lead initiatives to improve professional learning for their peers, create events that target specific strategies for improving teaching and learning for groups of students, and lead plans for advocacy of teacher quality and advancing school improvement.

Opportunities for teacher leadership exist in the form of "school improvement teams, teacher instructional support groups and teacher-led advisory councils" (Smylie & Brownlee-Conyers, 1992, p. 150). These roles for teachers propose that leadership involvement include all

participants in the school community (Spillane, Halverson & Diamond, 2001). In addition, literature associated with education change abounds with evidence that supports the pivotal role that school principals play in the process toward adoption of new practices and innovation in schools including shared leadership between teachers and principals (Bossertm Dwyer, Rowan, & Lee, 1982; Deal, Peterson, 1990; Fullan, 1991; Leithwood & Montgomery, 1982).

As asserted by Smylie and Brownlee-Conyers (1992) and contextualized by Berry, Smylie and Ekert (2016), literature suggests that new working relationships between teachers and principals exist and can provide the components needed for changing educational practices and improving schools. These relationships are complex and require many different factors for success and involve the social and normative dimensions of schools including organizational structures and contexts that promote leadership outside of traditional school leadership and involves teachers leading outside the classroom.

Teacher leadership has been utilized to improve teacher knowledge and capacity in P-12 school districts and higher education programs. Examples of school districts that have implemented teacher leadership initiatives include the District of Columbia (D.C.), where schools attempted to recruit and retain talented individuals. D.C. Public Schools implemented a Teacher Leadership Innovation pilot with the purpose of the development of new teacher leader roles using the strengths of the most effective teachers. For this new role, teachers worked with principals and designed specific roles for the teacher leaders geared toward the needs of the school. D.C. school administrators had already improved their teacher evaluation system, which included a career pathway for high-performing teachers with increased recognition and compensation, so the teacher leadership initiative was a natural event following those changes. Denver Public Schools similarly focused on building teacher capacity to increase leadership in teachers (Curtis, 2013). Denver Public Schools used their system of collaborative culture that was already in place to implement the Differentiated Roles pilot program where Team Leads spend one-quarter to one-half of their time as teachers outside the classroom to observe, coach and manage teams of teachers. Administrators were consulted when deciding to implement the initiative to give schools the opportunity to use this pilot to best serve each individual schools' needs (Aspen Institute, 2014). Universities across the country including Mount Holyoke in Massachusetts created paths to teacher leadership at the master's level by offering a master's degree in teacher leadership. At Mount Holyoke, students enter a twenty- four month program to attain a Master of Arts in Teacher Leadership. In this program, the Teacher Leader Model Standards are utilized along with the teacher leader's personal plan for leadership from the classroom school, community or beyond (Mount Holyoke College, 2016).

\ The problem of practice in this study focused on: determining how a teacher leadership initiative affected leadership in schools; how a teacher leadership initiative improved schools; how teacher leadership experiences informed the practices of both teachers and administrators and changed the way these educators thought about what it means to be an effective educator. The conceptual framework for this study is based on an extensive review of literature on teacher leadership and the researcher's personal experiences with leadership in the classroom and beyond. The conceptual framework suggests a theory of action for investigating the effects of teacher leadership on teacher and principal leadership; school improvement; and teacher and principal professional growth in practice. Theories and concepts that support the emergence of teacher leadership include transformational leadership, cognitive perspective, reflective practitioner, subjective educational theory (Van der Berg, 2002), Vygotsky's concept of the zone (Gordon, 2009) and constructivism. Embedded in the development of the teacher leader is the direct

connection to constructivism. Constructivism allows for the individual to derive meaning from an experience through the close examination of the experience increasing the individual's capacity to grow and learn yielding new thinking about teaching and learning in the context of the experience. Through participation in the Teacher Leadership Initiative, teachers engaged in just such a change in goals and thinking about improving leadership, schools, and the educational profession like they had not experienced before this initiative.

Teacher Leadership: Definitions, Expanded Roles, and Benefits

In their iconic investigation of teacher leadership, York-Barr and Duke (2004) stated that the purpose of teacher leadership as the improvement of teaching and learning and increasing student achievement for all our nation's students through a "process by which teachers individually or collectively influence their colleagues" (p. 288) as individuals, in teams, and organizations. Teachers who assume positions of leadership within schools and districts are often categorized into formal and informal positions of leadership. Formal positions are often designated from the building or district leadership and include lead teachers, department heads, and subject area coordinators or facilitators and gain respect through these assigned roles (Lai & Cheung, 2014). Professional norms of isolation, individualism, and egalitarianism challenge the emergence of teacher leadership when teachers are formally placed in these roles. Teacher leaders often feel conflict as their relationships with their peers shift from horizontal to hierarchical (York-Barr & Duke, 2004). Informal positions of leadership for teachers described by Lai and Cheung (2014), are those created by teachers for the specific purpose of improving the instructional and cultural environments through collaborative efforts to strengthen teaching and learning practices. As related by York-Barr and Duke (2004), informal teacher leaders receive their respect from students and colleagues through their knowledge and expertise.

York-Barr and Duke (2004) discussed, "Expanded teacher leadership roles range from assisting with the management of schools to evaluating educational initiatives and facilitating professional learning communities" (p. 235), expressing that teacher leadership involves teachers leading at all levels not just from the classroom suggesting new leadership roles for teacher leaders. Curtis (2013) related that, "Teacher leadership recognizes the talents of the most effective teachers and deploys them in service of student learning, adult learning and collaboration, and school and system improvement," (p. 4). As reported by Curtis (2013), reasons that school districts may pursue teacher leadership initiatives are:

- Further developing top talent;
- Helping other teachers improve;
- More effectively implementing key priorities, like Common Core;
- Building a pipeline to the principalship;
- Distributing leadership in schools;
- Increasing highly effective teachers' impact on student learning;
- Making principals' span of supervision manageable. (p. 4)

In addition, Coggins and McGovern (2014) stated, "Effective teacher leadership improves teaching and learning outcomes and gives teachers a voice at policy making at all levels" (p. 15). The most consistently documented positive effects of teacher leadership are on the teacher leaders themselves, supporting the belief that leading and learning are interrelated. Teacher leaders grow in their understanding of instructional, professional, and organizational practice as they lead. Less empirical evidence supports student, collegial, and school-level effects (York-Barr & Duke, 2004).

In Tsui's (2009) study, he revealed that outstanding teachers engage in discovery and exploration in teaching and learning, in problem solving, and in activities that expand their abilities in teacher leadership roles. As described by Lumpkin, et. al., (2014), teacher leaders act as transformative agents and collectively share their specialized knowledge with colleagues, expertise, and experience to help broaden and sustain school improvement efforts. Silva (2000) suggested that teacher leaders indulge in change efforts and improve their practices as they practice purposeful collaboration with their peers, which stimulates positive professional relationships and encourages teacher learning and growth by challenging the status quo. As teachers engage in collective inquiry with other teachers in collaborative environments, a sense of transformative practice and deeper understanding of the pedagogical practices of teaching can emerge as elaborated by the work of Berry, Smylie and Ekert, (2016), "The work of teaching can be the work of leading and the act of learning to teach can be the act of learning to lead" (p. 16). Van den Berg (2002) reported the professional development of teachers is successful (Franke, Carpenter, Levi & Fennema 2001) when the teachers themselves determine the problems and then create the solutions.

In Muijs and Harris' (2007) research, they described teacher leadership as "increased teacher participation in decision-making, and opportunities for teachers to take initiative and lead school improvement" (p. 113). Hunziker (2012) added that teacher leadership is teacher leaders working collaboratively in a professional community, learning, and growing professionally, and revealing the elements of professionalism. Utilizing teachers as leaders in the quest for educational improvement is a natural solution as without teachers facilitating instructional practice in schools, learning would be greatly impaired. Incorporating a systematic approach to solving school and district problems is often unique to the districts that are pursuing teacher leadership initiatives. Ryan (1999) suggested that teachers who participated in leadership experiences exhibited more confidence in their abilities, worked more toward helping their peers and were more apt to provide challenge to students that they taught which correlates with Bandura's concept of self-efficacy and building the human capacity of individuals. Building capacity in people in any profession requires that individuals develop a belief in themselves, and that belief helps them to actualize their dreams and goals. Finally, Taylor, Goeke, Klein, Onore, and Giest (2011) report that Greenlee (2007), Muijs and Harris (2006), and Taylor, Yates, Meyer and Kinsella (2011) conveyed that teacher leadership has been referenced to be the answer to the improvement of schools, retention, the democratization of schools.

School Reform and School Improvement

Are teacher leaders a pivotal and sustainable reform strategy for improving schools? Can teachers leading in schools and districts bring about organizational change and innovate learning practices? Horning and Loeb (2010) reported that traditional instructional leadership emphasizes building administrators practicing the work as "instructional leaders" of the building and describe a new emerging leader prototype (p.66). The new prototype noted by Horning and Loeb (2010) was outstanding teachers that use their exceptional knowledge of teaching to impact student learning and improve schools. This shift from teacher leadership from within the classroom to beyond the classroom recognizes teacher leadership is an integral part of the collective power of the school for educational improvement (Lai & Cheung, 2014). Additional findings in the study by Lai and Cheung (2014) revealed that teacher leaders extended their influence even beyond their schools as they networked with teachers from other schools engaging in inquiry to find solutions to curricular

and pedagogical problems. As teachers worked together in a collective manner with common situations, they were able to exchange ideas and resources relevant to their needs increasing their capacity for improvement of classroom practices.

Barnett Berry founder and CEO of the Center for Teaching Quality spoke of a bold new teacher: Teacher + Entrepreneur = Teacherpreneur (Berry, Byrd & Wieder, 2013). In this hybrid role, teachers assumed leadership positions without leaving the classroom. School districts provided for teachers to assume these hybrid roles to increase teacher knowledge and capacity, impact student learning and improve schools (Berry, Byrd & Wieder, 2013). Teacherpreneurism was not just about growing classroom experts, but about finding solutions to problems that can redesign archaic educational systems (Berry, Bryd & Weider, 2013).

Democratic Practices, School Culture and Climate

Transforming teaching practices and improving teacher competency requires that teacher leaders be empowered to develop change efforts. Empowerment of teachers to transform and maximize the learning in the school community is recognized by Bolin (1989) who stated that, a democratic and cooperative environment is essential and begins with the administrator who understands that success of the school and depends on teachers and other school personnel for implementation. In addition, Bolin (1989) asserted that, “teachers need to be able to exercise their craft within an organization that they have helped to shape” (p.8).

In a more recent study, Kilinc (2014) reported finding, that “school climate is a significant predictor of teacher leadership” (p. 1729). Demir (2015) revealed that school administrators are responsible for creating an environment that builds trusting relationships and at every opportunity and encourages teachers to collaborate and try new ideas to support innovative leadership. Building strong cultures that support teacher leadership requires that school leaders participate ongoing attempts at developing trusting relationships. Trusted relationships are created over time in grade level, schoolwide, and district team meetings and activities that require teachers and administrators to work together to achieve goals that are developed together toward improved schools and student learning. Kilinc (2014), reminds us that teachers did not move into leadership roles when restrictive school environments were present hindering the quality of the interactions between the school community members. “One of the marks of an effective leader is not only the impact that they have on the bottom line of student achievement but also equally how many good leaders they leave behind,” (Fullan & Quinn, 2016, p. 134). In his book on highly effective teams, Kirtman (2014) relates that, “effective school leaders build teams in their schools and develop trust and confidence with their staff to achieve results. They tend to use trust and motivation instead of discipline, rules, and punitive approaches to get results” (p. 6).

Shared Leadership Roles

York-Barr and Duke (2004) disclosed models of school leadership as instructional, participative, distributive, and parallel. They added that these models are more inclusive of the concept of teacher leadership and must emerge from many individuals within an organization and not simply a handful of formally recognized leaders. Hallinger and Murphy (2013) related that a pivotal step to change from a single leader to shared leadership is formally sharing responsibilities between administrators and teachers. This sharing of leading learning allows a “powerful approach to changing the normative environment in which instructional leadership is enacted” (p. 16). Sharing

leadership roles and responsibilities can increase the capacity development in an organization. Kotter (1996) stated that a key change factor for organizations is building capacity through a shared vision, common goals and language, team structures, and uniformity of teaching practices. York-Barr and Duke (2004) suggested that the probability of a successful teacher leader is greatly enhanced if the roles and expectations of the teacher leader are developed with the teacher leader, their peers, and the principal with instructional improvement as the goal. Barth (1990) conveyed the significance of sharing leadership (Spillane et al. 2007) to engage others in formal and informal leadership roles to reframe instructional leadership where administrators and teachers develop a joint identity sharing duties of the organization. A shared leadership structure within the school and district can promote teacher and staff efficacy and yet needs to be fostered through professional learning initiatives. Wilhelm (2013) described building and district leaders as staff developers whose role required them to model professional learning for teachers and staff so that eventually teacher leaders could assume these leadership roles. A change in thinking shared by a teacher leader from Wilhelm (2013) described the requirement of a fundamental shift in the role of teacher leader to a shared role. Although the literature reveals shared leadership practices to be essential in improving schools, intentional and systematic efforts to support the capacity of teachers and principals to share in aspects of school leadership appeared to be severely lacking (York-Barr & Duke, 2004). Also lacking was the skill level of teachers required for shared leadership roles in schools. In addition, Wilhelm (2013) reported that most teacher preparation programs do not provide teachers with the skills to implement shared leadership which included leading other teachers in analyzing student achievement and facilitating and locating research-based strategies to improve instructional practices and increase student learning

Inquiry Methods

The purpose of this qualitative study using a descriptive multiple case study approach was to examine the reported effects of the participation in the Teacher Leadership Initiative (TLI) on leadership, school improvement, and teacher and administrator professional practices through the constructed perceptions of the teachers and school administrators who participated in the pilot. The purpose of this study was achieved through an intentional research design that included: the careful review of the research on teacher leadership over time including current initiatives; semi-structured interviews of teachers and administrators who participated in the TLI; and data collection and analysis methods that answered the research questions.

The Teacher Leadership Initiative was a three-year pilot promoting teacher leadership implemented through a partnership between the National Education Association (NEA), the National Board for Professional Teaching Standards (NBPTS), and the Center for Teaching Quality (CTQ). The participants in this study were a sample of 8 classroom teachers, and 4 school administrators from the states of Ohio, Iowa, Mississippi, and Montana who participated in an eleven-month leadership initiative conducted in three phases comprising: (a) the development of innovative leadership skills, (b) exploration of a content strand that matches an interest of the teachers, and (c) the planning and execution of a capstone project (National Education Association, 2016, f). The National Education Association (NEA) served as the gatekeeper for this study and provided access to the participants. Participants selected in this study were teachers and school administrators who were engaged in the TLI in years one, two, or three of the pilot. All teachers were active members of the National Education Association teacher's union. Initial themes from the data revealed that the teacher participants appeared to be from a select group of

educators including a state teacher of the year, three National Board Certified Teachers, and local NEA union presidents. All teachers and administrators in this study served students in schools with diverse student populations and low socioeconomic status. Teacher participants included six females and two males with teaching experience ranging from six to twenty years. Two teachers were elementary educators and six were secondary educators. Administrator participants consisted of two males and two females with administrative experience ranging from six to twenty years and included one district level administrator and one former school principal who worked for the Mississippi Department of Education at the time of this study. The school administrators in this study supervised the teacher participants during the TLI and gave support to their respective teachers as needed throughout the year-long pilot.

The understanding that teacher leadership is situational and dependent on the context or teacher role is central to the TLI leadership model. Additionally, the TLI model was based on the NEA (2014) competencies of Instructional Leadership, Policy Leadership, Association Leadership, and Overarching Competencies. This initiative created by the NEA, NBPTS and CTQ gave teachers an opportunity to participate in a field-based experience for teachers and allowed them to choose between three structures of teacher leadership:

- Instructional Leadership-which placed teachers in the center of supporting and improving teaching and learning in their schools and districts;
- Policy Leadership-which ensured that experienced and accomplished teachers inform and influence policy making decisions at the local, state, and national levels.
- Association Leadership-which prepared current and future association leaders to include advancing the profession of teaching and the professional interests of members into the union advocacy agenda. (NEA, 2014, p. 2)

The teachers in this study were given, first the opportunity to use their leadership skills outside of their classroom to participate in a leadership event, then supported by the NEA, NBPTS and CTQ through local, state, and national cohort meetings for professional learning which targeted their development as TLI teachers. Additional support for implementation was given through their individual school's leadership or school district leadership as well as peers in their schools and with other teachers in TLI in other states.

During the first phase of the year long TLI experience, teachers worked to develop innovative leadership skills through improving teacher knowledge, dispositions, and abilities directed toward leadership. Teachers worked in collaborative activities that informed them about teacher leadership. They worked as a group to create ideas about transforming teaching and learning for the teaching profession (NEA, 2016d). Teachers then chose one content strand to explore further in a Capstone performance project and included these components:

- 1) Common Core in which participants learned strategies for Common Core implementation and leading their colleagues in this endeavor;
- 2) School redesign in which teachers developed the knowledge and skills to co-lead the design of new schools with an emphasis on teaching excellence, 21st century skills for college and careers, and teacher-powered approaches;
- 3) Social Justice in which teachers were equipped with resources to effectively engage with teaching colleagues, policymakers and community members on social justice and related topics; and
- 4) Teacher Evaluation in which teachers were equipped with resources and skills to effectively engage with teaching colleagues, policymakers and community members on teacher evaluation and related issues of policy, research and technology. (NEA, 2016e)

Teachers in this initiative chose one area from the three structures and developed a capstone

project much like a master's level thesis project. Findings from the interviews reveal the capstone project was not just a paper written to finish a degree completion but described an actual change in their practices as classroom teachers. This experience took them to a different level of thinking about teaching and learning, leadership, and what it means to be an effective educator because it was a project that they chose to improve teaching and learning and was unique to each individual teacher. It was not a task given to them by an administrator, it was truly the teacher seeing a need for improvement and then taking the opportunity along with the responsibilities and making it happen.

Research Questions

1. How do participants experience and understand teaching and learning differently after participating in the Teacher Leadership Initiative?
2. How do participants experience and understand leadership differently after participating in the Teacher Leadership Initiative?
3. How has constructed understanding about what it means to be effective as an educator changed after the Teacher Leadership Initiative?

The use of a descriptive multiple case study approach allowed inquiry to be used to discover and then described through reporting the specific actions of people, their beliefs and interests in this study (Erikson, 2011; Ratvich & Carl, 2016), along with the criteria established by Berry, Smylie and Ekert (2016) to note whether the criteria actually promoted teacher leadership and the subsequent action of teacher leadership and its effect on teachers, students, schools and school districts.

Research Instruments, Data Collection, Data Analysis

The National Education Association purposefully connected the researcher to the teachers and school administrators that participated in the Teacher Leadership Initiative Pilot. Interviews were conducted using a semi-structured format, were iterative, and evolved after each interview at the teacher level and administrative level to allow for the questions to give a clearer and more in-depth understanding of the participants' experiences. As participants were interviewed, the understanding of what was important to know about the participants' experiences in the TLI and how that affected their thoughts about teaching and learning, leadership, and what it means to be an effective educator changed. The interview questions became less generalized and more focused on the essence of this teacher leadership experience and how it impacted their lives as teacher leaders and administrators as well as their peers, their schools, and their school district.

Interviews were conducted by using zoom.us, an online video chat recording service and through recorded voice interviews due to geographical constraints between the researcher and the participants. To determine the consistent themes from the data, personal documents produced by the study participants are included in this study and gave a useful window into the thought processes of the individual, made a connection to the research questions, provided context to the study, and served to explore meaning from the participants (Ratvich & Carl, 2016). A *Capstone* project of a teacher participant along with a local newspaper review of the TLI added to the validity of the study and gave in-depth insight to the participants' lived experiences in this study.

The interviews were transcribed through trint.com, an online transcription service which allowed the upload of video and voice recording files. The files of each of the 12 participants were

revised through trint.com for accuracy of the wording and conversation during each interview by the researcher. Member checking was used with the participants after the initial revisions to the transcription to ensure that the transcribed interviews reflected the actual interview questions and responses. The interview timeframe with participants was conducted from October 2017 through December 2017.

Data analysis was iterative and recursive using an integrative approach. As data were collected over the duration of the study from the participants, it was combined to incorporate criticality into the process (Ratvich & Carl, 2016). Continuous formative analysis as well as summative analysis utilizing the transcriptions from the semi-structured interviews, and field notes from additional qualitative documents were used to review and refine the study. To determine the consistent themes from the data, the transcribed interviews were read and reread, and recorded reflection memos from each interview were revisited. This review also included the written notes from the interviews and field notes taken from additional questions sent via email to the participants post interviews. Data triangulation allowed for the assimilation of information from a variety of sources including the semi-structured interviews with transcriptions and qualitative documents, which included multi-media providing evidence of the participant's lived experience with the Teacher Leadership Initiative. Data triangulation combined multiple perspectives taken from individuals and supported a coherent justification for emerging themes or theoretical perspectives increasing the validity of the study (Creswell, 2014)

Using a *first cycle coding* strategy, the participants were sorted into demographic categories of: (a) teacher or administrator, (b) years of service and elementary or secondary, (c) level of education achieved and prior work experiences other than education, and (d) other current educational pursuits such as National Board Certification. Next, I added and sorted the following additional characteristics to deepen my knowledge of the teacher participants: (a) risk taker, (b) other teacher leader experiences, (c) supported by administration during TLI, and (d) highly involved with NEA. These initial coding strategies helped me to gain insight into each individual participant as a professional educator and allowed me to understand their prior and current experiences with teacher leadership. These methods also improved my ability to recognize the themes as they emerged from the data and how they were associated with these participants. Initial themes from the data revealed that the teacher participants appeared to be from a select group of educators including state teachers of the year, National Board Certified Teachers, and National Education Association local union presidents. These teachers, individually and as a group were highly skilled in the craft of teaching as depicted by their involvement with local, state, and national initiatives yet they were seeking something beyond the classroom to fill their need to impact teaching and learning.

When first cycle coding was completed, I used *Structured Coding* strategies, which allowed me to fully reorganize and categorize the data based on thematic, conceptual, or theoretical relationships to develop smaller more manageable themes for interpretation (Saldana, 2016). Through this strategy from Saldana (2016), I created a "Top 10 List" which extracted the ten "quotes or passages" that were most representative of the study utilizing the responses from the teachers and administrators and allowed the major themes to emerge.

Major Themes and Findings

The major themes that transpired from the data collected were: (a) Participant Characteristics: Teachers and Administrators, (b) Teacher Participation in TLI: Overall Purpose, Goals and

Personal Goals, (c) Preparation for Teacher Leadership: Teachers and Administrators, (d) Support for Teachers in the Teacher Leadership Initiative (TLI), (e) Changes in Thinking about Teaching, Learning and Leadership: Teachers and Administrators, (f) Improvement: Teachers Efficacy and Confidence as Teacher Leader, (g) Outcomes of TLI: Impact on Teaching, Learning and Leadership, and (h) Overall Impact of TLI: New Opportunities, Professional Growth and Facilitating Teacher Leadership. Each teacher's experience and their perspectives as well as the administrator's experience and perspectives with these teachers as they completed this journey is documented in the seven major themes that were extrapolated from the data. The organization of the findings was depicted through the themes with a summary of the findings from teachers and administrators followed by questions that directly related to the theme and the responses from teachers and administrators. The questions allowed a better understanding and connection of the importance of the themes to the study. Some responses did not have a direct question but reflect the findings related to the theme. This use of *Thick Description* allowed an accurate and thorough account of the contextual factors clearly describing the participants' experiences in the interviews to produce more complex interpretations and findings (Ratvich & Carl, 2016). Teachers and administrators were given pseudonyms for their responses in the findings. The themes also provide a connection to the foundational purpose of the Teacher Leadership Initiative delineated by the NEA, NBPTS and CTQ which states that TLI is a "product of our shared vision of teacher leadership advancing the profession." (NEA, 2014, p.2)

Results

All the TLI teachers in this study revealed gaining in their leadership skills and ability to lead others in their schools and districts. TLI teachers reported elevated efficacy and pedagogical skills from this experience. They also revealed that the TLI had a positive impact on the learning of other teachers and their students through the implementation of their individual projects. Individual projects included three teacher mentoring programs; improving teacher leadership at the building level; expanding the development of the local teacher's union; and improving classroom assessment and writing using technology at the school and district level.

The TLI gave these teachers the formal opportunity to lead teachers, schools, and districts in a project that was directed toward improving teaching and learning of their own choosing, not directed or influenced by administration. These teachers developed their projects, like most highly accomplished practitioners, toward impacting students and teachers, not toward personal gain. What they did not foresee when they took on the TLI experience, was the changes that occurred in their own personal beliefs about leadership, improving schools, and professional practices. As reported by the TLI teachers in this study, an awakening of their inner self as a *leader* not just a teacher emerged. A strengthened sense of self-efficacy and knowledge that their ideas and hard work were revered and appreciated by both colleagues and administrators came to the surface, as they created and implemented their projects. As teachers were put directly in roles of leadership, they became cognizant of how their expertise could be utilized in a manner that impacted professional practices at both the school and district levels.

Additionally, after TLI, many of these eight teachers were afforded leadership opportunities at the state and national level. TLI teachers stated that they believed the new opportunities were due to their advancement in leadership skills from the TLI experience. What was incredulous to me as the researcher was the fact that, only four of the TLI teachers considered themselves teacher leaders before this experience. One of the four that did not consider himself a

teacher leader before the TLI, was a state teacher of the year and had thirty-six years of experience. This teacher had many opportunities to work on committees, be a department head, and taught at a local university.

Until the TLI experience, he did not realize the effect that his expertise could have on improving teaching, learning, and the promotion of leadership in his school district. When asked about how participation in the TLI changed the way he thought about teaching and learning as related to teacher leadership or leadership in general, and his relationship with his school administrator, he gave me this response:

Yes. Revolutionary. Light bulbs. Fireworks. I was just happy to be a teacher with National Board Certification. I am making a difference that way. I bettered myself and I'm better for my students. This one, I can better the profession and I can help others to better themselves too. The principal, you usually think in your school and my traditional sort of thinking, is your school leader. Now, I realize that I too am a school leader. So in that way, I did talk to him differently. I could converse with him differently. Now whether he realized, maybe he didn't see the difference, but in my head, I was talking on a different level.

This teacher had experienced many professional conversations with this administrator before TLI, but felt that because of the TLI experience, his capacity to have a conversation at the leadership level increased significantly. Through the process of the Teacher Leadership Initiative, this teacher now identifies himself as a teacher leader. As reported by Sinha and Hanuscin (2017) from their study on teacher leadership, the development of the *teacher leader identity* is a process that requires a continuous and sustained effort to support the individual teacher's needs through this process. In addition, the progression of the teacher leader identity is highly influenced by teacher's "views on leadership, opportunities to lead, feedback and recognition during leadership activities, reflection on growth as teacher leaders and sustained support" (Sinha & Hanuscin, 2017, p. 358). Sinha and Hanuscin's (2017) case study results in respect to the development of the teacher leader identity, show a definite similarity to this case study. TLI teachers gained in their teacher leader identities as they engaged in professional learning about leadership in collaborative venues and then were able to practice their strengthened leadership and collaborative skills through the implementation of their capstone project. As the teachers began to identify themselves as teacher leaders, they also acquired indelible qualities associated with being a teacher leader that other teachers without this experience and realization do not possess. Each teacher in the TLI came to realize their teacher leader identity from their own prior experiences and opportunities with leadership, feedback with recognition from peers and administrators and through continuous reflection on their evolving leadership practices during the year-long event.

To summarize, the *teacher leader identity*, though a complex phenomenon, is a level of conscious expertise, skills or qualities that can be associated with the term *teacher leader*, just as the association of the qualities or expertise of a Biologist is analogous to a scientist. Although the TLI teachers demonstrated these traits through their professional skills and practices, the findings revealed that the TLI experience extended that confidence and efficacy to a new plateau. When the TLI teachers lead their projects, a new understanding of what teachers can accomplish as leaders transpired. They saw themselves as leaders among others as never before, and as one teacher said,

Yes, and it gave me an appreciation for how hard leadership roles really are. I mean they are hard and you've got to navigate the minefield somewhat. It was a confidence builder and made me want to get other people involved and yeah, you need to step up because we all need to step up. I was really grateful for that. I didn't even know I wanted that.

The findings from this study and the research depicted in this study reveal that teacher leadership initiatives improve teaching and learning. Teaching and learning are improved through the advancement of the teacher in leadership, collaborative, and pedagogical skills and in efficacy and confidence as they internalize this process and fully realize the identity and potential of the teacher leader (Sinha & Hanuscin, 2017). TLI teachers were given support for developing leadership, collaborative, and pedagogical skills while building efficacy and confidence during the year-long process, and one teacher revealed:

So I got to talk to people all over the nation when we did our collaboratories and it was good to have that. Expansiveness that I wouldn't have gotten otherwise. They gave it to you, was like oh my gosh, there's so much rich stuff here. There's so much really cool stuff that I didn't even know about because I'm sitting here thirty years in the school system.

In addition, school administrators that participated in the study also depicted changes in teachers due to TLI, as one stated:

Well I think that the overall experience was really, it was really good. I think it was powerful for these teachers to be able to collaborate and start learning about and talking about leadership within their ranks. And I think was probably beneficial for everyone. And it was exciting to see them excited. I think that them taking on that role without knowing that they have to do the principal job that they can do this stuff and still be effective in the classroom and still have that relationship with the kids and still do that but also influence their colleagues. I think that was really awesome. The qualities and skills affirmed from the process of this teacher leadership event acquired by the TLI teachers, are qualities and skills that all teachers from novice to accomplished should be exposed to throughout their careers to improve the learning in schools and districts, and depicted through this teacher's statement:

Well I guess what I realized is there is a way to tie it all up together that you can do both. You can teach and learn and be a leader all at the same time. And you don't have to leave one behind the other.

Conclusion

All the evidence and research from this study discloses that teacher leadership can improve teaching and learning in schools and districts. Insights from this research reveal that for teacher leadership to be an effective and sustainable approach to improving educational practices the following elements need consideration:

Teacher and administrator professional preparation for teacher leadership in schools and districts must happen. This is accomplished through pre-service preparation for teachers and administrators while in their respective programs toward certification. For teachers and administrators already in practice, partnerships with universities and state education agencies can support the development of training modules and application strategies to bring teacher leadership into schools and districts.

Teachers and school leaders working in collaboration to plan for improving teaching and learning through *shared leadership* practices where teachers take the lead in curriculum and assessment development and implementation; and professional learning experiences for teachers based on the school or district's strategic plan for improvement.

School systems and structures are changed to meet the demands of the time required for teacher leaders to take on shared leadership roles and fully implement them. Teachers are assigned

a classroom position in the school or district but have responsibilities outside the classroom in a teacher leader role to support the teaching and learning process.

Implications for Future Research

The participants in this study were teachers that were highly accomplished practitioners in their fields of instruction and perhaps represented teachers that were not the average teacher in schools in districts. This could account for their willingness to step beyond the classroom and embark on a journey that they had not experienced prior to the Teacher Leadership Initiative. For teacher leadership to become the *norm* for improving teaching and learning in schools and districts, a comprehensive look from the novice teacher's entrance into teaching and their professional pathway to accomplished practitioner as a teacher leader is an area for future studies. Studies conducted to explore novice teachers' induction into a particular pathway whether through a master's level program or through a state level implementation of teacher leadership to the teacher leader level could provide the data needed for practitioners to utilize teacher leadership to improve schools and districts. Included in the data collected would be the knowledge of the increased effectiveness of the teachers in the schools and districts evidenced through elevated student achievement. Future studies that reveal improvement in student achievement due to the development of teacher leaders from the onset of teaching could establish the protocols needed for changes in teacher and administrator pre-service preparation as well as the policies, structures, and practices necessary for implementation after certification in schools and districts. These studies could also provide a solution to the high levels of teacher attrition that exists today in schools and districts.

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How Can Leaders Develop and Maintain High Achieving Elementary Schools? A Single Case Study Exploring Collective Teacher Efficacy and Principal Leadership

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With the issue of student achievement at the core of educational policy, it is essential to determine how to create school environments in which all students have the opportunity to achieve. Collective teacher efficacy is a primary factor affecting student achievement, yet educational research also points to the importance of principal leadership in fostering and maintaining school cultures of success. A mixed methods approach guided this exploration of teacher and principal perceptions of collective teacher efficacy and leadership actions to foster collective teacher efficacy among staff.

Keywords: teacher efficacy, elementary leadership, high achieving schools

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Statement of the Problem

Although the Every Student Succeeds Act (ESSA) was created to guide schools toward success and equity for all students and “maintains an expectation that there will be accountability and action to effect positive change in our lowest-performing schools, where groups of students are not making progress” (U.S. Department of Education, 2019, para. 5), the reality is not all students are being supported. Over half of all students in the United States are not attaining proficiency and each deserves more from their education (NAEP, 2019). According to the 2019 *Nation's Report Card*, 35% of fourth graders across the nation scored at or above proficient in reading and 41% scored at or above proficient in mathematics (National Assessment of Educational Progress [NAEP], 2019). Comparatively, 40% of fourth graders in Colorado, where this study took place, scored at or above proficient in reading and 44% scored at or above proficient in mathematics (NAEP, 2019). Though slightly above the national average for both measures, these figures indicate more than half of all students in Colorado fail to meet proficiency, causing reason for concern on a local level. Although a high level of educational attainment is a challenge within many schools, there are promising practices to support teachers and student achievement.

Principals can draw from social cognitive theory to employ practices that support comprehensive decision making and sustained growth. Education is constantly changing, and leaders of individual schools must be equipped to face these changes and make decisions to support sustained growth. Together, school leaders (Goddard et al., 2017; Leithwood & Jantzi, 2008; Tschannen-Moran & Barr, 2004) and teachers (Goddard et al., 2004; Tschannen-Moran & Gareis, 2004) play an integral role in ensuring school success through promoting collective teacher efficacy (CTE). Though there is a robust body of research relating to CTE, further research is needed on how principal leadership fosters CTE and affects school performance. This study was designed to promote student achievement regardless of demographic data through a single embedded case study focusing on how school leadership fosters collective efficacy within an HRO framework. The goal was to analyze lived experiences in relation to teacher efficacy while attending to factors affecting student achievement. Findings from this study may be used to inform leadership decision making to ultimately affect student growth.

Collective Teacher Efficacy

CTE is rooted in social cognitive theory and related to self-efficacy. Much like self-efficacy, there are four main sources of collective efficacy, including mastery experience, vicarious experience, social persuasion, and affective states, with mastery experience being the most powerful (Bandura, 1997; Goddard et al., 2000; Goddard et al., 2004). Collective efficacy is “an emergent group-level attribute, the product of the interactive dynamics of the group members” (Goddard et al., 2000, p. 482). It is the group’s shared belief in how they can achieve the task at hand rather than a combination of individual beliefs (Goddard et al., 2000). Several studies have shown there is a strong link between perceived collective efficacy and student achievement gains (Bandura, 1993; Eells, 2011; Goddard, 2001; Goddard et al., 2000). Results of one study showed positive associations between CTE and increases in student achievement for both mathematics and reading (Goddard et al., 2000). Hattie (2018) asserted that when a school staff believes they can collectively accomplish the task at hand and make a positive difference, they most often will. Hoy et al. (2002) identified the relationship between CTE and school achievement as reciprocal (i.e., influencing each other), in that “collective efficacy promotes higher school achievement, but

higher school achievement also produces greater collective efficacy” (p. 90). Teachers in highly efficacious schools set challenging goals for students, display mastery instruction, and believe students can achieve high academic attainment, which shapes the school culture (Tschannen-Moran & Barr, 2004).

Internationally, CTE is gaining traction in the research, further supporting the importance of understanding this construct in a variety of school contexts. Cansoy and Parlar (2018) conducted a study in Turkey spanning elementary to high school levels using teacher efficacy scales (self and collective) and an effective school leadership scale. A positive significant relationship between effective school leadership and collective efficacy ($r = .42, p < .05$) reinforced the ability of school leadership to positively and significantly predict CTE (Cansoy & Parlar, 2018, p. 562). The researchers offered more empirical evidence of the need for principals to support and bolster teachers while stressing the need for future research to determine what aspects of leadership support CTE (Cansoy & Parlar, 2018). Mastery experiences are the strongest predictor of CTE and school leaders must promote such experiences for teachers (Hoy et al., 2002). Research has shown that “as teachers experience success and observe the accomplishments of their colleagues as well as success stories of other schools, they develop beliefs in their own capabilities to succeed” (Hoy et al., 2002, p. 91), in turn affecting their instruction and ultimately leading to student achievement. It is clear school leaders play an integral role in building teacher efficacy perceptions.

Leadership

Because CTE often accompanies school achievement, it warrants attention from school leaders. Leithwood and Jantzi (2008) asserted “school leadership is second only to classroom teaching as an influence on pupil learning” (p. 28) and further suggested leadership can unlock existing capabilities within the organization. It is clear school leadership matters; therefore, “if efficacy is going to be fostered in schools as a means of increasing student outcomes, insights into what is known about the relationship between CTE and leadership styles and practices is needed” (Donohoo, 2018, p. 341). Acknowledging the interconnections among people and their environment, Bandura (1997) shared “the relationship between individual and organizational effectiveness assumes special significance when individuals have to work interdependently to produce results” (p. 472). This idea bridges organizational learning and social cognitive theory to get at the core of the increased student achievement present in high-performing schools.

Relying on social cognitive theory, researchers have used translated efficacy scales to examine the relationships among teacher self-efficacy, CTE, and leadership, which links to the constructs of the current research (Calik et al., 2012). Statistical analyses have shown instructional leadership does, in fact, have a positive and strong effect on CTE ($b = .34, p < .01$; Calik et al., 2012, p. 2500). Calik et al. (2012) also reported leadership directly relates to teacher self-efficacy and indirectly affects CTE and suggested instructional leadership is an antecedent to CTE. Calik et al.’s associational research highlighted the relationships between leadership and teacher efficacy, getting to the core of student achievement. Though the results of their study support the ability to draw connections among constructs, they do not shed light into exactly how principal leadership works to build CTE.

Purpose

A primarily qualitative single embedded mixed methods case study was employed in the current study to answer the research questions. Two research questions were designed to examine how leaders develop and maintain CTE in an elementary school:

1. How do elementary teachers perceive collective efficacy in their individual school?
2. How do elementary principals perceive collective efficacy in their individual school?

COVID-19

It is important to note that during the course of this research, people across the globe were affected by the COVID-19 pandemic and resultant interruptions to economies, travel, education, and daily life. The interview and focus group questions were crafted to encompass pre-pandemic perceptions and pandemic-specific perceptions because things undoubtedly changed in schools around the world as a result of the pandemic. In the State of Colorado, much like in many states across the nation, school assessment practices were halted and altered starting in March of 2020, carrying forward into the 2020–2021 school year.

Methodology

Research Methods

Though the overall research questions supported the decision to conduct case study research, a mix of qualitative and quantitative methods was employed to ensure a rigorous design and to increase validity of the results. Mixed methods research involves the collection and analysis of both qualitative and quantitative data in response to research questions (Creswell, 2014). Embedded mixed methods is a more advanced design that “nests one or more forms of data within a larger design” (Creswell, 2014, p. 228). Because qualitative and quantitative data were collected simultaneously, the research can be further described as convergent.

Instruments and Data Collection

This research combined the Collective Teacher Efficacy Survey (CTES) teacher focus groups and interviews with school administration. The CTES was modeled from an original teacher efficacy scale (Gibson & Dembo, 1984) created through a series of reviews, field testing, and a pilot study, which supported both reliability and validity of the instrument (Goddard et al., 2000). Interviews and focus groups serve as a qualitative research strategy that enables participants to express their own experiences in response to open-ended questions (Creswell, 2015). To build upon the CTE scale data and maintain focus on CTE in a robust manner, the interviews and focus groups related back to CTE. Teacher focus group questions extended the CTES by eliciting specific examples of teacher perceptions of Bandura’s (1997) sources of efficacy, Brinson and Steiner’s (2007) suggested efficacy building actions, and Donohoo’s (2018) job satisfaction assertions.

Case Site Description

The selected K-8 school is situated in an urban district in Southern Colorado serves 571 students

with nearly 80% free and reduced lunch student population. The reported ethnic and racial demographics include roughly 58% Hispanic students, nearly 20% White students, 12% Black students, almost 8% of students identify as two or more races, 2% of students identify as Asian, and less than 1% of students identify as either American Indian/Alaskan or Native Hawaiian/Pacific Islander. In addition to ethnicity, students are identified in the following group memberships. Approximately 20% of students are English language learners, 14% of students qualify for special education services, and 3% of students are identified as gifted and talented. The principal has been leading the school for 8 years and currently has the support of two assistant principals.

The school has also been recognized by the state for 2016 to 2018 as a school that demonstrates high longitudinal growth with over 75% of students identified as at risk. SchoolDigger (2020) was used to examine 2019 school Colorado Measures of Academic Success (CMAS) data for combined grades (i.e., Grades 3–5) and indicated the school ranked considerably higher in science (45.2%) than the state average (30.7%). Though the school language arts CMAS data (43.8%) were slightly behind the state average (45.8%), the fifth-grade data (55.6%) stood out as considerably higher than the state average (48.4%) for language arts. This data trend was reflected for math as well, with a school average (40.8%) exceeding the state average (34.7%) and an even larger spread for fifth grade at the school (52.9%) compared to the state (35.7%). Aside from strong achievement scores, the school also demonstrates strong growth data according to the Colorado Department of Education Preliminary 2019 School Performance Framework (SPF). The overall 84.5% on the most recent SPF is the highest SPF for schools in the state with at-risk populations. Furthermore, the 74% median growth performance (MGP) in English language arts and 84% MGP in math both exceed state expectations. The school has strong achievement data (meets state expectations) paired with even stronger measures of growth (exceeds state expectations).

Participants

Participation in this research was completely voluntary. The CTES was voluntary for certified and classified staff members to complete. Teacher focus groups were optional for staff members and were organized by the principal. I collected consent forms prior to conducting the teacher focus groups. The K-8 school has 83 staff members, including administration, certified teachers, and support staff. Of the 83 staff members, 48 opted to complete the CTES. I conducted two teacher focus groups with a variety of certified staff members. I conducted three separate principal interviews with the principal and two assistant principals.

Results

Emerging Themes

Through multiple iterations of coding of the teacher focus groups and interviews with school administration, including the principal and two assistant principals, three major themes surfaced: communication, culture of collaboration, and an overall situational awareness.

Communication involves providing feedback to staff in a variety of ways. When considering CTE sources, communication relates to social persuasion. Culture of collaboration includes the opportunity for staff to participate in shared decision making across the school.

Culture of collaboration is aligned to vicarious experience when looking at CTE sources. Situational awareness includes aspects of school culture, the leadership of school administration, and high expectations. Affective states and mastery experiences relate to situational awareness when considering the success of the school and the ability of the staff to navigate crises together. The emerging themes are explained in greater detail as they relate to each research question below.

Research Question 1

The first research question was: How do elementary teachers perceive collective efficacy in their individual school? Addressing this question required an understanding of the perception of CTE across the school and how teachers perceive the school. Any certified and classified staff were given the opportunity to complete a CTES and teachers could opt to take part in the focus groups as well. The survey was used to quantitatively address the perceived CTE level within the school and the focus groups provided tangible examples of staff experiences.

Staff members completed an online version of the CTES (Goddard et al., 2000) hosted by SurveyMonkey to ensure safe and secure data collection. To protect participant privacy, the survey was anonymous. The purpose of administering the survey was to determine the overall perceived level of CTE at the case site school. The school-wide score of 558 is above what is considered average (i.e., 500), indicating higher than average CTE beliefs (Ventura, 2003).

Though the quantitative data indicate above average CTE, the qualitative aspects from the focus groups depict a more complete understanding of how the staff perceives CTE. The emerging themes of communication, culture of collaboration, and situational awareness are connected to the sources of efficacy below.

Communication

Teacher development and involvement were elements of communication shared throughout the focus groups. Marzano et al. (2005) argued, “Good communication is a critical feature of any endeavor in which people work in close proximity for a common purpose” (p. 46). In a school, that common purpose is student success. Teachers articulated a strong culture of feedback, supportive leadership that promotes individual growth and strengths, and a sense of connection as teachers are encouraged to seek out expertise in others, all of which relate to feedback. The included narratives demonstrate the way communication is infused into daily school functioning. Social persuasion is a source of CTE situated within the theme of communication and contextual examples drawn from the focus groups are provided below.

Social Persuasion. Social persuasion can strengthen staff beliefs in their own capabilities and is developed through professional development (PD) and feedback, ultimately promoting a cohesive staff (Goddard et al., 2000). Teachers provided numerous examples relating to social persuasion highlighting areas of school culture, teacher involvement, feedback, and communication. Many teachers discussed the school culture when reflecting on what motivates teachers to improve their practice; one shared the impact of recognition from the principal:

The principal makes everybody feel included in the Friday Forecast, and it doesn't matter what role you play. If you're a classroom teacher or a coordinator or a paraprofessional, or you work in the kitchen. Those shoutouts, key actions are . . . super powerful when it's something that you feel wasn't a big deal, but then they call it out in a big way. I think it's really powerful.

Another teacher added, “I got one [Friday Forecast shoutout] and someone came up to me and asked me what I was doing because of my shoutout. I felt like a super mega rock star,” indicating an increased sense of worth from the recognition.

A focus on improvement and growth was described by one teacher who shared:

Knowing that the school is achieving so well makes me individually want to become a better teacher. And, I think, pushes me on a daily basis to make sure that I have my lessons ready. I’ve tried different strategies. I’m trying something new each time that will hopefully help the students more than something that I’ve done in the past, because I look around and I see everybody else who are just incredible teachers. And I’m like, I want to be like those guys . . . and so it encourages me and pushes me to become a better teacher, because you do constantly see excellent teaching and other people improving their craft. You’re going to different professional developments and bringing those back. And I want to go learn something new. So I can include that into my class. And so it’s, I think inspiring, but also very challenging because it takes a lot of work to constantly be improving, but it’s worth it when you see what’s going on in everybody’s classrooms. Whereas I could see being in other schools where it’s just kind of like, I’m just going to keep chugging along with whatever I’m doing. And I think I felt that in other schools too, but I’m constantly challenged in a good way here.

This example demonstrates the level of commitment from teachers at the school, as they are willing to put in the work for the benefit of students, while simultaneously highlighting a prime example of being motivated by peers through social persuasion.

Another teacher shared, “I do feel like any time there’s the opportunity for staff to be involved, our administrators provide that opportunity for us.” Although school leadership has to act quickly with some decisions or district initiatives, it was shared that “as much as possible, I do feel like we’re involved in the decisions, and even when it comes to setting our UIP or unified improvement plan teachers are involved in that process as well.” Teachers feel they have the opportunity to be a part of conversations and decision making at this school as many mentioned the building leadership team (BLT) as one of many ways to be involved. As the teacher above referred to a shared leadership model, BLT representatives alternate every 2 years to provide more teachers the opportunity to be a part of school decision-making processes.

Feedback is another aspect referenced throughout the focus groups. Multiple examples were provided that support the use of meaningful observation experiences that help teachers reflect and grow as educators. One teacher shared the following about an observation experience:

One of my favorite instructional strategies is protocol for math and that came in a spot observation—they said “hey I think you and your kids are at a place to try this, come find me.” So we went through it, we did a whole PD together and he trained me on how to utilize the strategy, and so, they do a great job of offering those suggestions just through informal or formal observation. And so sometimes it will feel like they know they will roll it out to everybody, so it’s almost like some of it even happens just in those little moments that then just spread like wildfire across the school.

Culture of Collaboration

Marzano et al. (2005) stated culture, or “a sense of community and cooperation among staff” (p. 48), is an important aspect of developing a shared vision of the future of a school. School culture was referenced throughout the focus groups and closely linked to a strong desire to collaborate

among staff members. This culture of collaboration brings together two aspects of a school dynamic (culture and collaboration) and is explained through the following examples that link back to vicarious experience as a source of CTE.

Vicarious Experience. Vicarious experience includes hearing about the successes of others and engaging in observation to learn from those successes (Goddard et al., 2000). Throughout the focus groups, teachers provided examples to support vicarious experience. There are formal and informal structures in place to support the development of teachers through observation. Multiple teachers shared the benefit of observing in other classrooms. One shared, “I think for me the opportunities we have to go observe other teachers within our own building, or even sometimes in the district, and see some of the ways they’re doing things often motivates me to learn more.”

Classroom observations are encouraged through a “pineapple chart” where teachers can post an invitation for others to come observe a certain skill or strategy in the classroom. One teacher described it like this:

We have share fairs and we’ve had pineapple charts where, basically we’re opening up our classroom for people to come in and see, and just share everything and not reinvent the wheel. And I feel like I felt the most valued when someone had come to me and said, “I hear you’re really good at ‘this,’ and I want to come and watch it.” And just for them to be specific, to have heard them doing something that’s working or that good, just makes you feel really valued, and I feel like that happens a lot . . . it doesn’t matter if you’re a first year teacher or a 16th year teacher, there’s something that you’re valued for, that people seek you out to learn from you, which is really cool.

Co-teaching is commonplace in this school and serves as another example of teachers being able to see the strengths of others. Leadership encourages teachers to collaborate by sharing strengths of teachers with the staff and providing coverage when possible. One teacher reflected on collaboration by sharing:

There’s also a value for your own unique approach to a lesson. I think that is really important too, but when we go to admin and if there is another colleague who’s good at something [administration] is really good at being like, “Hey, you should go see this teacher’s number talks because she’s really good at that.” And it kind of makes us, if we want to get better at something, collaborate with the teacher we might not have talked to otherwise.

Situational Awareness

Those who lead with anticipatory leadership are equipped to handle potential threats and opportunities by leveraging an awareness of details related to school functioning (Marzano et al., 2005). Principals who are perceptive of staff morale and open to communication regarding decision making can influence how staff interprets challenges and positively affect overall school functioning. Teachers shared multiple examples that related to the situational awareness of school leadership that are linked to the sources of efficacy below.

Affective States. Another source of CTE is affective states, which is related to how those within a school organization interpret challenges. Goddard et al. (2000) stated “efficacious organizations can tolerate pressure and crises and continue to function without severe negative consequences; in fact, they learn how to adapt and to cope with disruptive forces” (p. 484). A typical school year has many disruptive forces, including the COVID-19 health crisis that has

uprooted many structures and routines in schools since the Spring of 2020. Teachers also shared multiple challenges the school previously worked through, including the transition to becoming an authorized International Baccalaureate School and school renovations. These examples showcase the ability to navigate potential crises and emerge as a cohesive school unit.

Perhaps previous challenges have influenced the way leaders and teachers navigated the current school context with COVID-19. When reflecting on the changes the school encountered prior to COVID-19, one teacher shared, “every year there’s been a pretty significant change,” but further reflected, “because of that sense of community and sense of wanting to excel in our positions, everybody just rolls up their sleeves, supporting each other, being like let’s get to work, let’s get started, it’s not going to change itself.” This statement sounds similar to Tschannen-Moran and Barr’s (2004) assertion that “teachers in schools with high collective efficacy do not accept low student achievement as an inevitable by-product of low socioeconomic status, lack of ability or family background, they roll up their sleeves and get the job done” (p. 192). Affective states can explain how organizations navigate difficult situations, whereas mastery experiences provide a chance to overcome such difficulties to find success.

Mastery Experiences. Goddard et al. (2000) shared that teachers and schools encounter failures and successes, and mastery experiences require a “resilient sense of collective efficacy” by “overcoming difficulties through persistent effort” (p. 484). Through both focus groups, teachers shared various examples that supported mastery experiences during their tenure at this school. Teachers shared the opportunities to try new strategies in the classroom, professional development opportunities, and opportunities for professional growth. Additionally, teachers shared about planning and teaching, promoting inquiry and critical thinking for students, student data success, and procedures in place to support all students.

One veteran teacher shared this reflection on her growth as an educator once she found her strength as an educator at this school:

When I started here, I had only been teaching for a few years and at the school that I worked at before this one, I really didn’t like find my place, I felt really inadequate, I guess, as a teacher, because I was in a role that wasn’t necessarily set up for me to be successful in. But I took a lot of that personally because I didn’t feel like I made the difference that I wanted to make or was quite the teacher that I wanted to be. Then I think that being here, I was able to really like find my strengths and build on them and grow a lot over the 7 years I’ve been working here . . . I just grew substantially every year teaching and was able to see that in like my student results. And, I don’t know that that would have happened if I was anywhere else.

Teacher growth is one important aspect in the success of a school, yet student success is also of importance. When it comes to student performance metrics, the data are not just celebrated, they are used in the decision-making and planning processes. One teacher explained:

It’s kind of ingrained in us that we’re fairly data driven as a school . . . we use our iReady data or whatever sort of assessment data we’re using to make groupings of kids to put interventions in place, to really make sure we’re measuring the kids’ growth ability to not just like assuming everything’s okay.

It is an ongoing process because once groups are made, a teacher shared, “We’re looking for those targeted interventions for kids, because we want all of them to grow, not just our high performers.” The close attention to student data underscores the importance of mastery experiences to help teachers keep pushing their instructional practices. The teacher focus groups uncovered many aspects of how they perceived collective efficacy in their school, and Research Question 2 shifts

the focus to principal perspectives.

Research Question 2

Interviewing the principal and two assistant principals provided both unique perspectives and repetition of certain notable aspects in the process of working to understand Research Question 2. Similar to the teacher focus groups, the four sources of CTE (i.e., social persuasion, vicarious experience, affective states, and mastery experience; Goddard et al., 2000) were compared to school administration responses to identify patterns and themes. Narratives were organized by the emerging themes of communication, culture of collaboration, and situational awareness.

Communication

Effective communication skills are essential in school leadership much like in any leadership position. Communication is “the extent to which the school leader establishes strong lines of communication between and with teachers and students” (Marzano et al., 2005, p. 46). The examples previously provided by staff highlighted communication as a strength of the case site, yet arguably communication is strategically supported and strengthened by administration. Much like the collective efficacy source of social persuasion, communication can support staff cohesion, development, and ability to give actionable feedback. Social persuasion is closely connected to communication and several examples are provided to help make the connection.

Social Persuasion. It is clear from the responses of leaders and teachers alike that staff satisfaction was identified by respondents across the board. One example of staff satisfaction was shared as “how much people enjoy working here and they say it all the time to one another; especially when we hire new individuals, you get quickly absorbed into this mentality of this is a great place to be.”

Schedules are designed in advance to get teacher feedback and buy-in: “If someone notices an issue with the duty schedule, it’s better to know that months in advance instead of like at the moment it’s happening.” Proactive thinking also promotes buy-in from staff when it comes to initiatives or changes being implemented in the future: “We don’t believe anyone ever masters teaching, there’s always more that you can learn and that we’re not doing our job if we’re not helping push and grow your skillset as a teacher.” The focus on growth is present in the debrief protocol shared here:

We give very detailed narrative feedback and we use a praise, polish, question format. So we’re always praising multiple things. We’re going to give one or two polish statements of ideas or strategies, things to try and then a question or two. And then that way, when we come back a week later, we can get follow-up feedback on that. Or if we’re seeing a different content area, cause we might see math one week and writing the other, when we debrief again, the first part of the protocol is how has your previous action step been going? So even if we saw reading, they can talk about, well, last time, you know, you saw math and we talked about rally coach and here’s, what’s happened over the last week using rally coach. Now this observation was about reading, but reading, I’m actually giving similar things cause I’m trying to do less teacher talk and more whatever. So then it’s connecting that feedback over time, so it really is this cycle that plays out.

Administration reflected, “It’s more powerful when it’s teacher-driven, people get interested in what this teacher’s doing that’s new and cool. Then five people are doing it. And then

10 people.” In sharing how quickly ideas spread without formally providing staff PD, one principal stated, “Suddenly it’s just part of the fabric of the school and everybody is doing it, but the lineage of where that idea came from isn’t necessarily clear to people; it makes for a highly collaborative atmosphere.” Another reflection was, “We’re mindful of holding people to a high bar, but then also mindful of connecting people with each other when it comes to effective practices that people might like to try out.”

Culture of Collaboration

School leadership facilitates a culture of collaboration across the school with strategic structures to support staff in the process of teaching and learning from each other. Through repetition of peer observations and hearing accounts of what colleagues across the school are doing well, it is clear leaders are supporting CTE by building vicarious experiences to support teacher development. Much like the principals support this for teacher development, they also need to be exposed to vicarious experience to grow their own skills as leaders.

Vicarious Experience. One principal took the opportunity to observe different principals and question why they did certain things in order to create a leadership toolbox. They shared, “What I’ve seen as most successful is not a top-down approach, you have to give teachers some autonomy to do what works for them, as long as it’s getting the results that you want for their students.” This understanding of teacher needs serves this school leadership team well and highlights their continued attention to school functioning.

Situational Awareness

There is no denying that a large part of school leadership is handling situations that arise on a daily basis and that affect stakeholders in various ways. This is what Marzano et al. (2005) described as a leader’s “awareness of the details and under-currents regarding the functioning of the school and their use of information to address current and potential problems” (p. 60). How leaders respond to disruption relates to how aware leaders are in the first place. Having situational awareness sets up leaders for success when interpreting potential challenges.

Affective States. Affective states is the fourth source of efficacy and in essence uncovers how challenges are interpreted within an organization and more importantly how those in the organization are able to tolerate pressures, adapt, and cope with disruptions as they arise (Goddard et al., 2000). This school, like many, has had a fair deal of disruptions and challenges related to COVID-19 in terms of school functioning. However, leaders and staff at this school have navigated myriad other challenges and disruptions prior to the health crisis. Administration has also navigated challenges with individual teachers, whether they are dealing with personal matters or engaging in teaching-related coaching conversations.

The school staff navigated this as a whole through the support of a university partnership. A professor came to work with the staff about “robust failure,” guiding the staff through hands-on experiments “where there was no way to be successful—you were going to fail this experiment, you didn’t have all the materials and information you needed, and working them through that process of how to struggle productively versus just struggle.” This work related directly to staff work and turned into a problem of practice. It was also noted that “we do instructional rounds here, and we write a problem of practice every year that guides teacher goals. We do walkthroughs where staff get to observe other grade levels focused on our problem and practice.” This concept

of productive struggle became a school-wide focus for 2 years, digging into “that balance between spoon-feeding kids too much and letting them struggle too long with no support.” An exciting part of the process was “the more that we did that with kids, the more that then helped them apply it themselves in terms of taking risks . . . and how do you respond when something doesn’t go your way?” One of the teachers took the concept of productive struggle to heart and self-reflected through the challenge of teaching remotely and one day was in tears about the difficulty and challenges and then opted to shift their mindset and be a problem solver. The administrator shared:

Watching them Tuesday, Wednesday was a whole different person than who we saw on Monday. . . . That kind of thing just spreads amongst staff when you see them do that, you’re thinking, okay, I can do this too. I can figure this out and solve my problem situation. It’s contagious and modeling what we want.

A further testament to the school’s ability to adapt to the challenges presented by COVID-19 is shared here: “I actually feel like the strength of our school during this is how much we are doing that is normal and the same and routine,” adding teachers are not the only ones to benefit from consistency, “I think that kids appreciate that because it just does provide a sense of normalcy in a time that is really hard and not normal.”

COVID-19 remains at the forefront of reflections among leadership as one principal shared, “The whole goal is to not see the situation as something we’re just trying to get through, but something that potentially could change long term, what we do for schools,” furthermore, “maybe a pandemic is our opportunity to do that because we’ve been talking about it for a few decades, but no one ever actually makes the change.” Stemming from that, the leadership team spent time “talking about some of the possibilities. This is obviously frustrating and it’s going to be hard and it’s going to be tough, but, what are some of the good things that can come out of it?” Reflecting on the positives and celebrating success is where mastery experiences come in.

Mastery Experiences. In response to the question, “How has your school experienced success?” the administrators shared multiple examples, including setting “high expectations for kids academically, but also just as people,” not just setting high goals but also a determination for improvement because “everybody’s constantly wanting to get better, which then pushes everyone else to get better.” The district leaders also monitor teacher retention in terms of creating a positive school climate.

One administrator reflected on the pride from earning the Governor’s Distinguished Growth award by sharing, “Looking at the list of schools who also won the governor’s award, I noticed that a lot of them were from much more affluent areas. And we were the only one I noticed though as a Title 1 school.” Being the only Title 1 school with such achievement “was a really proud moment where this is a sign that we were doing really good things for kids, and they’re achieving at levels comparable to really affluent districts.” This sustained growth is certainly a purposeful and actionable goal, as it was shared, “You wouldn’t expect to see some dramatic spike, the goal is nice stairsteps that are sustainable for kids and aren’t just mastering a test, but also have the deeper meaning, of what we deemed important, long-term skills for kids.” It is clear the staff have paused to celebrate success, yet they never cease to keep adapting and working hard to see student growth. The narratives above more explicitly showcase how teachers and leaders perceive CTE and how it is maintained within the school. What might other leaders consider in order to bolster CTE in their schools and why might it matter?

Discussion

“Fostering collective teacher efficacy should be at the forefront of a planned strategic effort in all schools and school districts” and “educators’ beliefs about their ability to reach all students, including those who are unmotivated or disengaged, should be openly shared, discussed and collectively developed” (Donohoo, 2017, p. 1). Leaders should consider some of the following practices rooted in research and framed by the current study when looking to foster CTE among staff. Donohoo (2017) outlined four practices to support leaders in developing CTE among teachers: creating opportunities for meaningful collaboration, building collegial relations, empowering teachers, and involving teachers in decision making. These aspects are present at the case site and are further contextualized for those seeking to adopt similar practices.

Meaningful collaboration requires time and a clear support structure. The case school embodies this aspect starting with a schedule that provides common planning time for teams to the greatest extent possible. Additionally, staff use school-wide PD time without students to dig into data through Professional Learning Communities and work on individualized goals. Though there is autonomy for teachers in this work, it is also structured to promote the efficient use of time, which supports Donohoo’s (2017) assertion that:

To reach the level of joint-work and to ensure teams avoid the pitfalls of groupthink, structures and processes need to be in place that promote and require interdependence, collective action, transparency, and group problem solving in search of a deeper understanding (p. 39).

This is evident when considering the school-wide problem of practice in which teachers dig into issues together to improve outcomes for students. In terms of collegiality, this is evident in teacher retention and the dynamic of the “school family” feeling shared within the focus groups and interviews. Teachers feel empowered at the school site, and several reiterated the boost they received when getting a “shoutout” in the weekly newsletter, being observed as a student teacher, or being sought out as an expert in some teaching practice. This supports what Donohoo shared: “Change is more likely to be effective and long lasting when those who implemented it feel a sense of ownership and responsibility for the process” (p. 40). Aside from leadership actively “planting seeds” of collaboration and building teachers up by drawing attention to their strengths, this also manifests through the share fairs and pineapple chart referenced numerous times.

Involving teachers in decision making was another leadership action used to foster CTE. The process the BLT engages in to unpack the annual climate survey is one way leaders purposefully bring teachers into decision-making processes at the school. It was reflected, “They’re the ones who really lead the analysis, it’s not something that just sits with the admin team, we make decisions based on what all of our colleagues have said,” which builds ownership and promotes staff engagement in decisions outside of the classroom. These examples support the development of CTE within the school and provide insight into how these practices come to life within a school.

Previous research has shown collective efficacy is more important in explaining school achievement than is socioeconomic status, which is significant because “it is easier to change the collective efficacy of a school than it is to influence the SES of the school” (Hoy et al., 2002, p. 89). Hoy et al. (2002) further asserted, “When collective efficacy is high, a strong focus on academic pursuits not only directs the behavior of teachers and helps them persist but also reinforces a pattern of shared beliefs held by other teachers and students” (p. 89). Typifying this aspect of CTE, the case site has a strong academic focus supported by leaders and teachers alike.

Data meetings and PLC structures, co-teaching to support all students, “planting the seed” to spread instructional initiatives, and frequent observations paired with debrief for teacher growth are all used to support students’ academic achievement. Building CTE does not come through a sole focus on academics, it is also supported through the sources of efficacy, including mastery experiences, vicarious experience, social persuasion, and affective states (Goddard et al., 2000).

Mastery experiences are the most influential source of efficacy (Bandura, 1997) and therefore should be considered by school leadership when looking to bolster the CTE of staff. Mastery experiences were showcased across the case site through teacher and administrator responses. Teachers shared excitement about receiving a forwarded parent email during a challenging time and felt motivated and supported to implement new teaching practices because they had the support of leadership. The school celebrates successes through weekly shoutouts in the Friday Forecast newsletter and through statewide recognition of student growth and achievement, yet staff never seem to stop and settle for complacency, they keep moving forward. CTE builds because when “teachers experience success and observe the accomplishments of their colleagues as well as success stories of other schools, they develop beliefs in their own capabilities to succeed” (Hoy et al., 2002, p. 91). Teachers in this study shared personal success stories relating to data growth, successful observations, implementation of new structures, and being sought as an expert in a certain facet of teaching as examples of mastery experiences. They also shared the importance of peer observation to build their skills as teachers.

Vicarious experience is strengthened through the modeling of practices and witnessing the success of others. The pineapple chart, share fairs, and co-teaching practices are three specific ways leaders in this school demonstrate attention to vicarious experience as a means of promoting teacher efficacy. Learning coaches are another example of support used to build vicarious experience, as they come in to model and explore instructional practices with teachers. Teachers appreciate that even principals come to model instructional practices, as one teacher shared a favorite instructional routine came from individualized PD and a lesson modeled by a principal.

Social persuasion is exemplified throughout the school. PD and feedback are both identified sources for building CTE. Teachers and principals alike reflected on the culture of observations and more importantly the resulting feedback. It is clear teachers crave the feedback to grow as educators; one teacher shared appreciation for the feedback process by stating, “It’s not like you just get a report or an email about how you did, and then there’s nothing after that,” as teachers have the opportunity to discuss and improve teaching practices. Principals also feel strongly about the feedback model as one shared, “We have a really consistent and frequent observation feedback model . . . they themselves have articulated the growth that they’ve undergone, we are able to like really help teachers to become more effective.” This example highlights the importance of feedback for teacher growth and development; however, feedback alone is not enough, but “when paired with success and positive experiences it can influence the collective efficacy of a faculty” (Goddard et al., 2000, p. 484). Leaders should look for ways to provide ample feedback paired with success to help build efficacy.

The ability to navigate and cope with difficult situations is another source of efficacy, also known as affective states. Aside from the dynamic situation posed by COVID-19, teachers shared other ways affective states are exemplified within the case site. One teacher shared their experience with a shift in teaching demands, and said that though it was a lot to process initially, they felt the overwhelming support from colleagues who came to assist in the transition; they reflected on the process, stating, “I appreciate all the love, and they’re all like, you’re going to be fine.” Teachers and administration support each other through times of difficulty whether they are asked to or not.

Several examples reinforced this idea, such as when middle school teachers came to help log primary students into their computers, COVID groups, and even walking dogs for colleagues outside of school. COVID-19 has left many teachers feeling ineffective, as one shared, “We know the expectations we have for ourselves and our students, and it’s super frustrating to me that I can’t meet them,” but that has not stopped teachers from putting in the work because it was noted “with COVID, we’re not willing to sacrifice quality.” It is clear from these statements teachers are pushing through otherwise negative forces affecting their work.

Though it demands much reflection and reframing, they continue to show up despite feelings of inefficiency. This persistence demonstrates strong CTE because “in a school with a high level of collective teacher efficacy, teachers are more likely to act purposefully to enhance student learning” (Goddard et al., 2000, p. 502), and these teachers are not about to settle for anything less than their best for their students. How might school leaders support CTE in their schools? They can start by considering any of the examples provided above and emphasizing what is going well within the school by highlighting the successes of the school. At the case site this was achieved through weekly shoutouts, positive and encouraging emails, and school recognition of achievement data.

Furthermore, leaders may consider providing ample opportunities for peer observations, as evidenced in this school through the problem of practice observations, the pineapple chart, share fairs, and even co-teaching experiences. Feedback should also frame the work of school leaders to support teacher growth, as having specific feedback structures or protocols in place may help support the intentionality of feedback. Support through difficult times is also crucial, which is where a strong school culture focused on building supportive relationships among staff is key.

Though CTE is a promising construct for promoting academic achievement in schools, High Reliable Organization principles may further frame the work of school leaders.

Conclusion

The examples provided in this article are rooted in the literature, contextualized from the case site, and described through sources of CTE. Incorporating CTE highlights promising practices for school leaders ultimately looking to develop and maintain highly reliable schools. These came to life through the three overarching themes of communication, culture of collaboration, and situational awareness, all of which support aspects of CTE structures.

Structures that support developing CTE include recognition for success, observation and modeling of instructional practices, consistent and timely feedback, and working through challenges in a strategic manner. These are not prescriptive suggestions nor are they an exhaustive list of all potential examples. “Amazing things happen when a school staff shares the belief that they are able to achieve collective goals and overcome challenges to impact student achievement” (Donohoo, 2017, p. 1). Students deserve nothing but the very best, and these practices may just be a part of the student achievement solution.

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