

ABSTRACT

Barto, Harry George. Improving Teacher Quality: Hiring and Retaining High Quality Teachers in a Small, Private Preparatory School (under the direction of Dr. James Bartlett).

High-quality teachers have been shown to be a foundational component in the success of students in k-12 education. High-quality teacher recruitment, selection, and retention become a cornerstone of a high quality school. The problem, of identifying, hiring, and retaining high quality teachers, is addressed in this dissertation. The school had to replace over half of their teachers in a nine-month period for assorted reasons such as relocation, retirement, and new job opportunities. The new teachers hired in this period had a churn rate of 50%. Administrators reported that this turnover of new teachers was centered on the lack of students achieving positive learning outcomes and the lack of connection to the students. The three journal articles investigated how to identify and retain high quality teachers and how high quality teachers impact student and school success and its application in a small private school environment. Quality teachers are the single most important influence on the success of a student and consequently the success and growth of a private school in a competitive environment (Balossi and Hernandez, 2015). Article 1 is An Integrative Review of Literature on definitions of teacher quality using the methods outlined by Torraco (2005,2016). This article shows how an integrative literature review of 382 publications resulted in more than 250 definitions of teacher quality that was subsequently merged into 40 descriptions of teacher quality and lists the characteristics, personal qualities, and skills of high quality teachers. This dissertation addresses a matter of significant importance for one small private school that had to replace a large percent of teachers and had higher than desired churn rates. This dissertation uses a three-article approach to address this problem. The first step in addressing the problem is to have a clear understanding of what is a high quality teacher based on evidence from research. The next step, for this specific setting, is to explore how a variety of stakeholders from a small private preparatory school including administrators, parents, and teachers view high quality teachers. Finally, take the findings from article 1 and article 2 and apply them to create a method to continuously improve the selection and retention of high-quality teachers in a small private preparatory school. Article one is an integrative review of literature that sought to answer the questions (1) How does the literature define a quality teacher

and (2) What are the specific characteristics, personal qualities, and knowledge assets of quality teachers? Article 2 utilized a q-methodology approach to engage key stakeholders: teachers; administrators; and parents to group and prioritize the definitions of a quality teacher. Article 3 describes what is needed to put into practice what is learned from the literature review and Q-Sort methodology using improvement science methodologies such as the Carnegie Foundation “The Six Core Principles of Improvement” (Bryk, Gomez, Grunow, & Lemahieu, 2015) and implemented with the Spiral Human Performance Improvement Model (Marker et al, 2014). Tools such as Plan, Do, Study, Act (PDSA) cycle, and Ishikawa’s Fishbone diagram (a.k.a. Cause and Effect Diagram) were used to drill down into causality to create action steps. The school’s recruiting and selection process was changed to a Behavior-Based Interviewing method(BBI) using a rubric acquired from the research on the definition of a high quality teacher.

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Improving Teacher Quality: Hiring and Retaining High
Quality Teachers in a Small, Private Preparatory School

by
Harry George Barto

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APPROVED BY:

James E. Bartlett
Committee Chair

Michelle Bartlett

Gregory Hicks

Carrol Warren

DEDICATION

To Dr. James Bartlett and Dr. Michelle Bartlett. Their caring leadership, teaching craftsmanship, and focus on our success served as a model and inspiration for the three articles. I will always appreciate their friendship and support as I worked to overcome personal challenges.

BIOGRAPHY

Harry George Barto was born in Guam and joined the United States Army upon graduation from high school. He served four years on active duty and completed an associate degree from Fayetteville State University. He later transferred to NCSU and completed a bachelor's degree in chemistry and was commissioned as a Chemical officer in the Army. He then served as an artillery officer in the NC National Guard. During 30 years of corporate leadership, he completed a Master of Management from Northwestern University and had global responsibility for businesses based in Asia and Europe. He retired in 2016 and applied to and was accepted into the NCSU program. He invested in a small, private preparatory school in Charlotte, N.C. and is putting into practice the knowledge gained from this research.

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CHAPTER 1

Prologue

Introduction

High-quality teachers have been shown to be a foundational component in the success of students in k-12 education. High-quality teacher recruitment, selection, and retention become a cornerstone of a high quality school. The problem, of identifying, hiring, and retaining high quality teachers, is addressed in this dissertation. This dissertation addresses a matter of significant importance for one small private school that had to replace a large percent of teachers and had higher than desired churn rates. This dissertation uses a three-article approach to address this problem. The first step in addressing the problem is to have a clear understanding of what is a high quality teacher based on evidence from research. The next step, for this specific setting, is to explore how a variety of stakeholders from a small private preparatory school including administrators, parents, and teachers view high quality teachers. Finally, take the findings from article 1 and article 2 and apply them to create a method to continuously improve the selection and retention of high-quality teachers in a small private preparatory school.

Description of Research Setting

This small private preparatory school was started in Charlotte, North Carolina in 1994. The founder of the school dreamed of starting a private school that is positive, supportive, and focused on helping students succeed academically and beyond. The school is accredited by the National Independent Private School Association (NIPSA) and AdvancED, based in a 10,000 sf building in a business park in Charlotte. Classes range from 8th grade to 12th grade. In 2018, the school had 72 students supported by 7 teachers and 4 administrative staff including the head of the school. Ownership of the school passed from the founder to his son and a partner in 2009 and subsequently the school changed ownership in October 2017.

The school experienced a long period of teacher longevity and steady growth up until the summer of 2018. An internal promotion and two teachers relocating catalyzed the process of recruiting new teachers into the school in three of the seven teacher positions. Over the next nine

months, all three teachers hired in 2018 were also replaced. The school went into the 2019 school year with strong new student enrollment growing from 70 students to 82 students, driven by the strength of the economy, boosts in marketing, upgrades in staff, and investments in the school. The Covid-19 pandemic presented a unique set of challenges requiring greater flexibility and a need to recruit several more teachers. Growth remains strong. However, students, parents, and even the teachers and staff are starting to worry over the effect of teacher turnover on the school's long-term success.

Statement of the Problem

TrinityPrep aspires to help students with learning challenges that cause them to struggle in the traditional public and private school environment. Teacher turnover in 2018 was over 50% causing students and parents to raise concerns over the school's process for selecting and retaining the best teachers. The strategy of the school is to grow at the current location from 72 students in 2018 to over 100 students by 2021.

It has been shown that selecting, recruiting and retaining quality teachers is critical to the success and growth of private schools. Parents choose to enroll their children in private schools expecting expert quality teachers. Many factors contribute to school improvement and student achievement but the single most influential school-based factor is the teacher (Stronge & Hindman, 2003).

Data from the Dallas Independent School District reveal that a student

who has a high-performing teacher for just one year will remain ahead of his or her peers at least the next few years of schooling...teachers produce a strong cumulative effect on student achievement. For example, students placed with highly effective teachers for three years in a row, beginning in 3rd grade, scored 52 percentile points higher (96th vs. 44th percentile) on Tennessee's mathematics assessment than students with comparable achievement histories who had three low-performing teachers in a row.

Parents send their children to private schools on the expectation that the school will recruit and retain quality teachers. If we don't address this, there are a number of outcomes that may negatively impact the school. The negative outcomes from a lack of quality teachers may include student dissatisfaction, parent loss of confidence in the school, lower teacher morale, and ultimately enrollment decline. TrinityPrep grew over 10% in 2018 due to improvements in the economy, investments in expanding the school footprint, and a greater emphasis on teacher satisfaction. These gains may be fleeting if the school does not reverse its turn-over of teachers.

The typical private school growth rate has been flat or declining. A decline in enrollment would significantly reduce the school's ability to provide the resources needed to drive improvements in student morale and success. If a business is not growing, it will not be able to invest in infrastructure, recruit high quality teachers, or sustain quality improvements in teaching methods. This may result in a downward spiral of teacher and student morale, parent loss of confidence in the school and ultimately possibly may impact the school's long term survival.

Purpose of the Dissertation

The purpose of the three-journal articles in the dissertation is to illustrate what a small private, preparatory school is doing to identify the characteristics of a high quality teacher, and retain them. This is a project that is seeking to use data and evidence to improve the talent of teachers. Quality teachers are the single most important influence on the success of a student and consequently the success and growth of a private school in a competitive environment (Balossi and Hernandez, 2015).

In most private schools, the head of school, or principal, makes the hiring decisions typically involving the participation of a board of teachers and administrators. In some cases, the owner or chairperson of the school is fully engaged given the strategic importance of teacher selection. The results of this study may serve as a useful template for selecting, recruiting, and retaining excellent quality teachers for other private schools. As the economy improves, the competition for talent will heat up, making it imperative that private schools know what they need to succeed and grow.

Public and private schools face the ongoing challenge of selecting and retaining expert quality teachers who can support the success of the schools and students. Teacher shortages across the United States are being reported in the news (Darling-Hammond, 2017). Teacher layoffs from the economy and pandemic yield a higher level of teacher dissatisfaction impacting the supply of high quality teachers. .

The long-term success of a school is a function of getting expert quality teachers in place. The Rand Corporation speaks to this in the article “Teachers Matter: Understanding Teachers’ Impact on Student Achievement”:

Research using student scores on standardized tests confirm that some teachers are more effective than others are and also reveal that being taught by an effective teacher has important consequences. When it comes to student performance on reading and math tests, a teacher is estimated to be two to three times the impact of any other school factor, including services, facilities, and even leadership.

This study proposes crafting three journal articles investigating how to identify and retain quality teachers and how quality teachers impact student and school success and its application in a small private school environment.

Research Questions

A critical question is what are the most important assets a private preparatory school must have to assure continuing success and growth? Research points to identifying, recruiting and retaining high quality teachers. The question leads directly to the following research questions that will be presented by the articles.

Article 1: Integrative Review of Literature on Definitions of Teacher Quality

1. What does the literature define as a high quality teacher?
2. What are the characteristics, personal qualities, and knowledge assets of high quality teachers?

Article 2: What are the Perspectives of Teachers, Administrators and Parents in a Small Private Preparatory School of Quality Teachers?

3. What are current teachers, administrators, and parents' viewpoints of quality teachers and why?
4. Are there similarities across the viewpoint?

Article 3: Improving Practice: Creating a Strategy to Identify and Retain High Quality Teachers

5. Based on findings from Article 1 and Article 2, what strategy can a private school employ to identify and retain high quality teachers?
6. How can improvement science tools assure the transition from research to practice?
7. How did the changes impact high quality teacher retention and student outcomes

Significance of the Study

Selection and retention of high quality teachers creates an opportunity for private preparatory schools to build a sustainable and strategic competitive advantage. Parents move their children to private schools on the expectation that their children will have high quality teachers capable of motivating them to succeed in school and beyond. It is what teachers know, do, and care about that contributes so powerfully to the learning equation (Hattie, 2003).

Teachers are the top in-school factor affecting student achievement according to the Center for High Impact Philanthropy at the University of Pennsylvania (Barrett, Hovede, Hahn, & Rosqueta, 2013). Teacher impact accumulates over a student's time in school. Students taught by highly effective teachers over several years can outperform students who had poor quality teachers by as much as 50 percentile points. It can often mean the difference between going to college or dropping out of high school.

A private school must know precisely what it takes to hire a quality teacher, engage its best talents to recruit them and assure that the school's culture is one that makes teachers want to come and stay. Private schools pay far less on average \$40,000 than over \$50,000 paid in public schools. The chasm in pay is simply because private school teachers get to ply their profession in an environment where classes are far smaller than in public schools and less bureaucracy allowing teachers to teach (Orlin, 2013).

In summary, private preparatory schools need high quality teachers because they are singularly the largest factor in the success of the students and consequently the school. Parents choose private schools on the expectation that teachers are excellent. Quality teachers can significantly improve a student's level in math and reading and generate sustainable improvements over a multi-year span. When it comes to student performance on reading and math tests, a teacher is estimated to have two to three times the impact of any school factor, including services, facilities, and even leadership. Finally, there is some evidence that highly effective teachers can raise student earnings by 10%-15% over the student's lifetime (Hanusek, 2011).

Conceptual Framework for Connecting the Studies

The purpose of the three-journal articles in the dissertation is to illustrate what a small private, preparatory school is doing to identify the characteristics of a quality teacher and retain them. The three-journal articles investigated how to identify and retain quality teachers and how quality teachers impact student and school success and its application in a small private school environment. Quality teachers are the single most important influence on the success of a student and consequently the success and growth of a private school in a competitive environment (Balossi and Hernandez, 2015).

Figure 1 illustrates the conceptual framework for connecting the studies. There are three articles in the study: Article 1 an Integrative Review; Article 2, A Q-Sort Methodology; and Article 3, An evidence-based improvement project to improve high quality teacher retention.

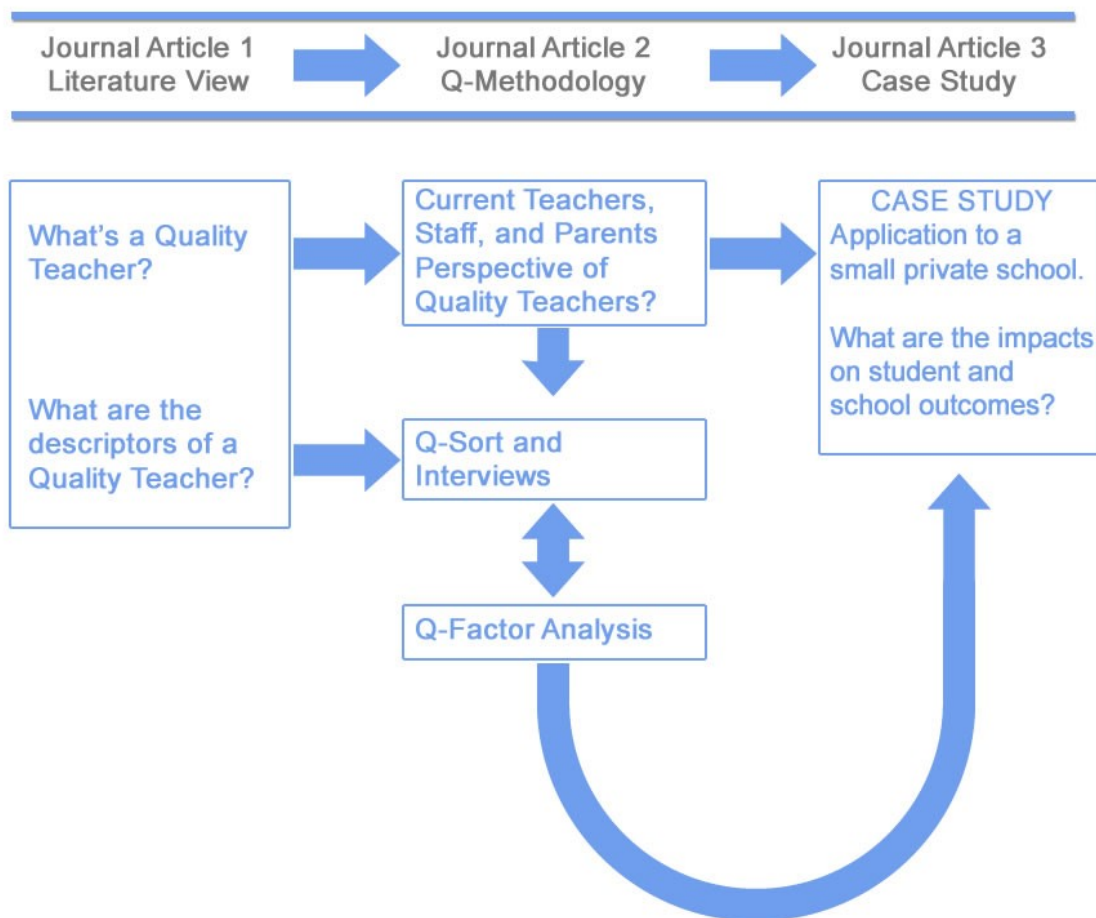


Figure 1.1. Conceptual Framework for Connecting the Studies

Article 1 is An Integrative Review of Literature on definitions of teacher quality using the methods outlined by Torraco (2005,2016). This article shows how an integrative literature review of 382 publications resulted in more than 250 definitions of teacher quality that was subsequently merged into 40 descriptions of teacher quality and lists the characteristics, personal qualities, and skills of high-quality teachers. The 40 descriptions are then connected to the next step of the research.

Article 2 is a Q-Sort methodology that explores the perspectives of teachers, administrators, and parents on the definition of a high-quality teacher in a small private school. Twenty-seven participants comprising 10 teachers, 7 administrators, and 10 parents sorted the 40 statements from the literature review. The factor analysis identified 3 factor groups describing teacher quality including: Caring Motivators; Learning Artisans; and Friends First. The consensus

of the groups places greater emphasis on teachers who are committed to making a difference for the student with two groups giving high marks to the value of building strong relationships with students as a prerequisite for student learning and success.

Article 3 describes how the school conducted an evidence-based systematic improvement project that sought to increase high quality teachers' retention. To better understand the problem, the school mapped the hiring process. The data from process mapping, the literature, and research called into question the current hiring process and how the school was operating. The study describes the move from research to practice. The transition is grounded in the Carnegie Foundation “The Six Core Principles of Improvement” (Bryk, Gomez, Grunow, & Lemahieu, 2015) and implemented with the Spiral Human Performance Improvement Model (Marker et al, 2014).

Limitations of Article 1

Article 1: Integrative Review of Literature on Definitions of Quality Teachers

1. Search criteria include Google Scholar, NCSU online library, and Google Search and reflect writings from academic journals, business journals, educational and leadership blogs, and instructional videos.
2. Research on desired teacher qualities is predominantly oriented toward public schools as research on private schools is limited.
3. The description of desired teacher qualities (concourse statements) extracted from the research require further investigation and vetting by public and private school practitioners before conducting the Q-Methodology study.
4. 2001 - 2019 timeframe may mask changes in teacher quality definitions.

Limitations of Article 2

Article 2: What are the Perspectives of Teachers, Administrators and Parents in a Small Private School of Quality Teachers?

1. Q-Methodology is subjective in nature and consequently difficult to replicate scientifically. Therefore, the study is limited to one private preparatory school in Charlotte NC and should not be extrapolated to other schools without caution.
2. The selection of the participants, the P-Set, is based on the author's ability to access teachers, administrators, and parents as chairman and owner of the school.
3. Participants may apply personal or professional biases to rank the concourse statements in a way that do not truly reflect their feelings but what they perceive to be the "proper" ranking.
4. The **P-Set**, seven teachers interviewed, including four incumbents and three newly hired, are assumed to be high quality teachers based on anecdotal observations and comments from parents, administrators, and students.

Limitations of Article 3

Article 3: Improving Practice: Creating a Strategy to Identify and Retain Quality Teachers

8. The selection of the school was based on the author's ability to access teachers, administrators, and parents as chairman and owner of the school.
9. The seven teachers interviewed, including four incumbents and three newly hired, are assumed to be high quality teachers based on anecdotal observations and comments from parents, administrators, and students.
10. The Improvement Science-based implementation plan is limited to Trinity Christian Preparatory School.

Delimitations Article 1

Article 1: Integrative Review of Literature on Definitions of Teacher Quality

11. Most literature on characteristics, traits, and skills refer principally to public school teachers.
12. Only articles and instructional videos from journals found in google scholar , NCSU online library, and Google were included in the study.
13. Only two public and private school practitioners were used to appraise the concourse statements sourced from the literature review.
14. Teacher behavior, traits, and skills identified were most frequently identified in the literature review and were included in the Concourse.

Delimitations Article 2

Article 2: What are the Perspectives of Teachers, Administrators and Parents in a Small Private Christian School of Quality Teachers?

15. The study has a narrow scope limited to one private preparatory school in Charlotte NC and should not be extrapolated to other schools without caution.
16. Only Trinity Christian Preparatory School administrators, teachers, and PTSO parents were involved in the Q-Methodology study.
17. Only two public and private school practitioners were used to appraise the concourse statements sourced from the literature review.

Delimitations of Article 3

Article 3: Improving Practice: Creating a Strategy to Identify and Retain Quality Teachers

18. The study has a narrow scope limited to one private preparatory school in Charlotte NC and should not be extrapolated to other public or private schools.
19. Only Trinity Preparatory School administrators, teachers, and PTSO parents were involved in the Q-Methodology study.

20. Access was limited to two public and private school practitioners to appraise the concourse statements sourced from the literature review.

21. Implementation strategies for identifying and retaining quality teachers generated from the research apply to Trinity Preparatory School.

Definition of Terms

Independent Schools are self-governing private schools with independent boards and funded primarily through tuition, charitable donations, and endowment income.

Private Schools are a diverse set of schools that are non-public and can include parochial, for profit, trade, and a variety of other schools.

Highly Qualified Teacher –NC is a teacher who is certified or licensed to teach in the North Carolina public school system and holds at a minimum a bachelor’s degree and subject matter competence.

A High Quality Teacher in an Independent School (NAIS) is a teacher who develops strong relationships with students, demonstrates strong pedagogical knowledge and content expertise, and possesses a growth mindset.

National Association of Independent Schools (NAIS) is a member organization of 1,700 independent schools 1400 of which are in the United States. Operates as a national voice for independent schools and offers research and trend analysis, leadership and governance guidance, and professional development.

Q-Methodology is a methodology for the study of human subjectivity or personal point of view. Invented in 1935 by British physicist-psychologist William Stephenson (Brown, 1993).

Concourse - A selection of descriptive statements or images included in the Q-Sort. Derived from Cicero’s usage of concursus, a term designating a “stream of consciousness that is shared with others” and may reflect shared understanding (McKeown & Thomas, 2013).

Factor - The cluster of respondents whose Q-Sorts are statistically similar (Brown, 2004).

Factor Loadings - The respondents' correlation with each of the clusters or factors.

P-Set - Research participants selected to sort and rank the concourse statements (McKeown and Thomas, 2013).

Q-Sort - The instrumental analysis of Q-Methodology is the Q-Sort. Each research participant rank orders a set of perceptions. It's a means of capturing subjectivity (Watts & Stenner, 2012).

CHAPTER 2

**Identifying Quality Teachers For A Private Preparatory School- Integrative
Literature Research**

Identifying Quality Teachers for a Private Preparatory School

Integrative Literature Research

Harry Barto – Doctoral Candidate

North Carolina State University

Dr. James Bartlett – Committee Chair

Dr. Michelle Bartlett Dr. Gregory Hicks Dr. Carrol Warren

January 2022

Integrative Review of Literature on Definitions of Teacher Quality

Abstract

Of all the factors influencing the success of our schools, teacher quality matters most (Stronge & Xianxuan, 2017). The importance of teacher quality drives two research questions:

- 1. What is the general definition of teacher quality?** The research defines a quality teacher as one who has the traits, skills, and leadership to assure student success.
- 2. What are the specific characteristics, personal qualities, and knowledge assets of quality teachers?**

The research identified 40 key phrases, along with 20 attributes that specifically define teacher quality. Noting that teachers who love students, teaching, are patient, kind, funny, confident and caring, have a tireless work ethic, and are committed to life-long learning are more frequently mentioned as quality teachers.

The research reveals 20 important quality skills including preparation, classroom management, the right experience with the appropriate educational credentials and being able to communicate at all levels.

Finally, there are specific leadership traits essential to being a quality teacher. They lead by example, are team players who set high expectations, and inspire students to greater learning.

An integrative literature review of 382 publications resulted in more than 250 phrases identified and merged into 40 definitions of teacher quality.

In summation, quality teachers show tireless commitment to teaching, bonding with students, have the correct credentials and skills to create an excellent learning environment, and finally, are leaders who inspire students to greater learning.

Keywords

Quality Teacher Attributes, Quality Teacher Behaviors, Quality Teacher Leadership, Quality Teacher Values, Quality Teacher Skill

Introduction

This integrated literature review explores the characteristics of quality teachers and the impact these teachers have on student and private school success. The question for a small private preparatory school is how does one assure the continuing success and growth of the institution. Of all the factors influencing the success of our schools and students, teacher quality matters most (Stronge & Xianxuan, 2017). Private preparatory schools need quality teachers because they are singularly the largest factor in the success of the students (Ballosi and Hernandez, 2015). . Quality teachers can make the difference between a student dropping out or being prepared for college (Barrett, Hovde, Hahn, & Rosquesta, 2010). Finally, there is evidence that highly effective teachers can raise student earnings by 10%-15% over the student's lifetime (Hanusek, 2011).

The research is framed by the fundamental concepts of leadership theory and practice as described in Bass and Stodgill's Handbook for Leadership (Bass, 1990). Historian Thomas Carlyle had a major influence on the "Great Man" theory of leadership (Cherry, 2019). The theories of leadership developed over time identify some aspects of the desired traits, behaviors, and skills required for a successful leader. Leadership research reflects how the models of leadership qualities and behaviors deliver the required results. The best teachers are often shown in terms of ideal traits, behaviors, and skills. The very best teachers behave very much like the very best leaders (Riggio, 2010).

Why Do Quality Teachers Matter to a Private School?

The Rand Corporation conducted research on standardized testing on math and reading tests and estimated that a teacher can have two to three times the impact of any other factor including services, facilities, and even leadership (Rand Education, 2012). Teachers in schools with similar demographic attributes can accelerate math and reading levels one half to one and a half years each academic year (Hanusek, 2011).

Hanusek writes in his book "Valuing Teachers: How Much is a Good Teacher Worth?" suggesting that effective teachers can have a real value effect on the lifetime earnings of a student. If the lifetime earnings of a student is \$1.16 million a good teacher can increase earnings by as much as \$230,000. Conversely, a low performing teacher, one in the 16th percentile, will

negatively impact the earnings of a student by almost \$400,000 (Hanusek, 2011). This provides evidence that teacher quality impacts have been shown to impact the labor market outcomes of students.

This research is significant for private preparatory schools because quality teachers are singularly the largest factor in the success of the students and consequently the school. Parents choose private schools on the expectation that the teachers are excellent and the classes are small (Balossi & Hernandez, 2015). Quality teachers can make the difference between a student dropping out or being prepared for college (Barrett et al, 2013). Finally, there is evidence that highly effective teachers can raise student earnings by 10%-15% over the student's lifetime (Hanusek, 2011).

Purpose and Research Questions

Teacher quality has a positive effect on student success, both in school and later in life (Balossi and Hernandez, 2015). Additionally, teacher quality is a significant factor in a school's success and makes it critical that schools know how to identify and recruit quality teachers (Stronge & Xianxuan, 2017). The purpose of this paper is to understand what is a quality teacher? Two specific research questions drive the design and execution of this study:

- 1. What does the literature generally define as a high quality teacher?**
- 2. What are the specific characteristics, personal qualities, and knowledge assets of high quality teachers?**

Research Methods and Design

This paper implements an integrative review of literature using the methods outlined by Torraco (2005, 2016). The integrative review of literature has specific research questions and uses existing literature to create new knowledge. The integrative literature review methodology forms the basis for the collection of data, evaluation of the data, presentation of the data, and informs on the future research needed to assess future paths for policy and practice.

Data Collection. The primary sources of information used for data collection: Google Search; Google Scholar; and NCSU Online Library. Keywords and phrases include Quality

Teacher Attributes, Quality Teacher Behaviors, Quality Teacher Leadership, Quality Teacher Values and Quality Teacher Skills. The search time-frame is 2001 - 2019. The 18 year period, while lengthy, is useful to gain longitudinal context and to determine if definitions of quality teacher change over this period. The tables show consistency in the definitions and statements on the values, behaviors, attributes, and skills that define a quality teacher.

Search criteria include Google Scholar, NCSU online library, and Google Search and reflect writings from academic journals, business journals, educational and leadership blogs, and instructional videos. The date range of the search 2001 to 2019. The search cast a very broad net to identify sufficient definitions of a quality teacher. Research on desired teacher qualities are predominantly oriented toward public schools as research on private schools are limited. The description of desired teacher qualities extracted from the research require further investigation and vetting by public and private school practitioners.

A scan of literature on Google, Google Scholar, and the NCSU online library reveals hundreds of journal articles on teacher quality and teacher value. However, articles on quality teacher attributes, behaviors and skills linked to leadership theory and useful for creating descriptive statements are less available. University websites, blogs and education association articles are important sources on the various attributes, behaviors, and skills of quality teachers.

The search query based on the research criteria returned 382 results. The list of articles was further refined by reviewing both the abstracts and conclusions of scholarly articles and books. A broader view using Google search of available articles spanning academic journals, business journals, education books, newspaper articles, training videos, and social media generated useful articles addressing the two research questions.

The following criteria informed further refinement of the search:

- Articles generated by referencing the key phrases including Quality Teacher Attributes, Quality Teacher Behaviors, Quality Teacher Leadership, Quality Teacher Values, Quality Teacher Skills.
- Publications with references to the key phrases, definitions and models.

- University websites defining teacher quality provide a rich offering of practice-based definitions and statements of desirable teacher qualities.
- Most of the publications are articles or educational blogs consistent with accessing information from more recent thought leaders in the field.

There are five exceptions to sources other than articles. They include Balossi and Hernandez, 2015 research publication “ On Teacher Quality in Independent Schools”, and four books, Northouse, 2012 “Leadership. Theory and Practice”, Stronge and Hindman’s 2006

The Teacher Quality Index”, Hanusek, 2011 “Valuing Teachers: How Much is a Good Teacher Worth?” and Stronge, 2018 “Qualities of Effective Teachers” Third Edition.

The abstracts and summaries of the original 382 articles, publications, and books were read and pared down to 83 articles by selecting articles that offered keywords and phrases that define the characteristics, behaviors, attributes and skills of quality teachers. These 83 articles, publications, and books were read in full, resulting in 42 articles, one research publication, and four books for inclusion in the final study. These 43 articles generated over 250 key phrases describing a quality teacher. The 250 key phrases were listed in a spreadsheet along with the source article. Similar phrases were further condensed into the 40 definitions of teacher quality listed in tables 1 and 2.

Findings

Data analysis of extant literature produced findings for the two research questions. Findings for each research question follows with a summary of key words and phrases. Synthesized conclusions are provided for both research question 1, What does the literature generally define as a quality teacher? and research question 2. Research question 2 extends question 1 by asking more specifically, What are the specific characteristics, personal qualities, and knowledge assets of a quality teacher?

Research Question 1:

What does the literature generally define as a quality teacher?

The lens of desired traits, behaviors, and skills required for a teacher framed research question 1. Using the framework from leadership research provided a model of how the qualities and behaviors deliver the required results. The best teachers are often shown in terms of ideal traits, behaviors, and skills. The very best teachers behave very much like the very best leaders (Riggio, 2010).

The research identified three categories of teacher quality required to gain student success. The definitions that emerged are generally grouped into three categories: Traits; Skills; and Leader. First, “Traits” are desirable personal attributes of quality teachers. Second, “Skills” are the teachable professional and technical skills needed to effectively manage the classroom and deliver instruction collaboratively and effectively. Third, “Leader” are the traits and skills combinations that allow teachers to model the leadership behaviors that motivate students to learn and catalyze success.

Figure: 1 shows a summary graphic of the general traits, skills, and leader traits and skills described by the research Figure 1.

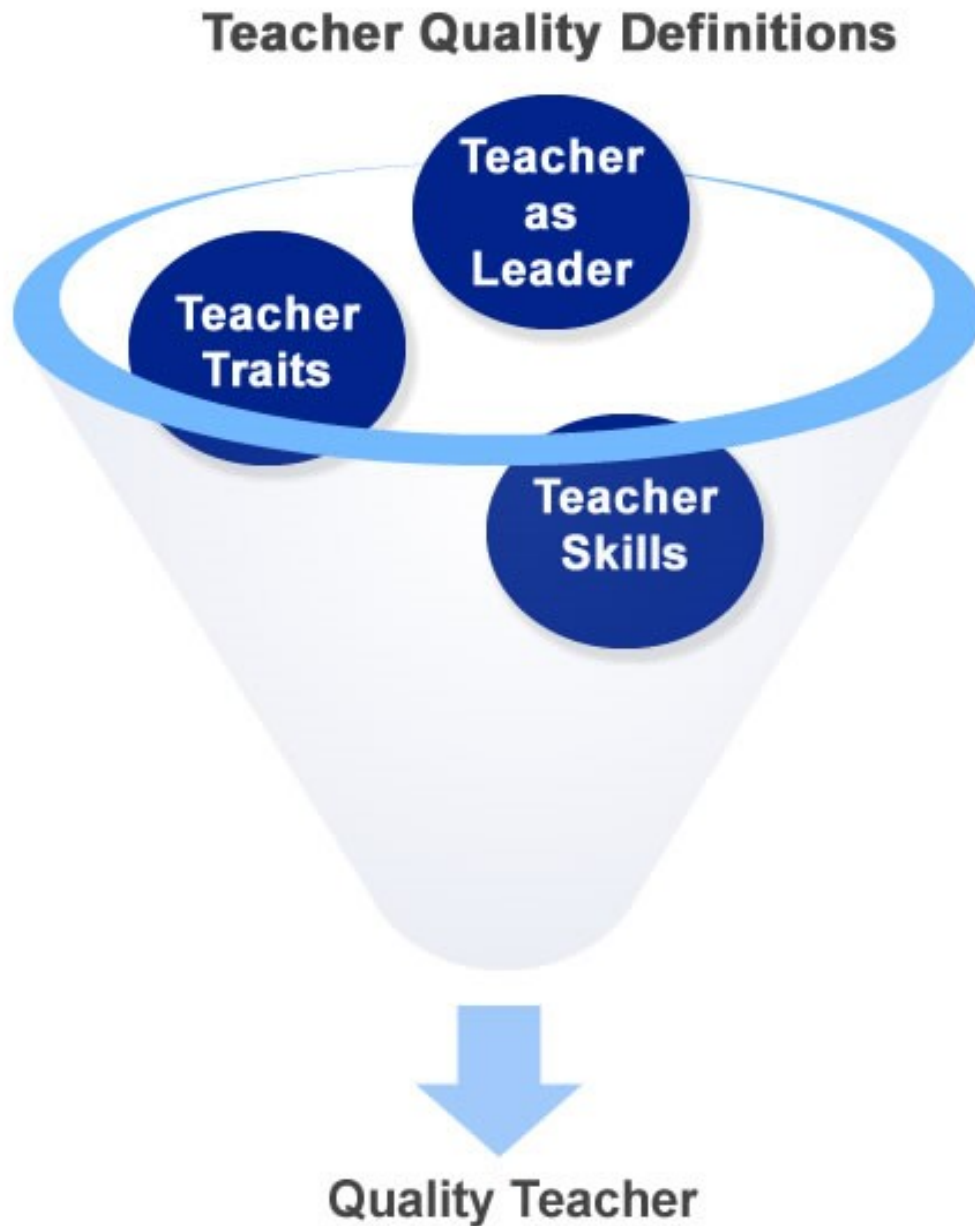


Figure 2.1. Teacher Quality Definitions From Research

Research Question 2:

What are the specific characteristics, personal qualities, and knowledge assets of a quality teacher?

The research identified 40 key phrases that define teacher quality. These 40 key phrases along with the source references are listed in Tables 1 and 2. An integrative literature review of

382 publications across a broad spectrum of literature generated more than 250 keywords and phrases defining a quality teacher were identified and merged into 40 definitions of teacher quality. These 40 definitions along with references are listed in the tables.

The literature research on the definition of a quality teacher is predominantly from sources referring to public school teachers as information available on private schools is limited (Balossi and Hernandez, 2015). Applying what was gathered in the research requires extrapolation to private school teachers. The research finds teacher quality definitions are lined up very similarly to leadership theories.

Quality Teacher Traits

Trait theory is a “virtue” theory of leadership where inborn traits manifest themselves in the “born leader” that help the leader guide and control situations (Johnson, 2018). Quality teacher traits are desirable personal attributes of teachers. There are 20 attributes in Table 1 that specifically define teacher quality. Noting that teachers who love students, teaching, are patient, kind, funny, confident and caring, have a tireless work ethic, and are committed to life-long learning are more frequently mentioned as quality teachers.

Table 2.1. Traits With Documented References for High Quality Teachers	
Traits - Keywords and Phrases	References
Loves students and develops close and respectful relationships	CDE (2018), Goldberg (2003), Hattie (2003), Jenkins (2016), Lam (2014), Meador (2018), Orlando (2013), Peterson-Deluca (2016), Rm241Team (2013), Stanford.edu (2018)
Loves to teach and demonstrates deep content knowledge and subject mastery	CDE (2018), Goldberg (2003), Great School Staff (2018), Hattie (2003), Jenkins (2016), Lam (2014), Meer (2018), McCabe (2011), Meer (2018), Peterson-Deluca (2016), The241Team (2013), Strauss (2011), Stronge (2018)
Patient and fair in their daily interactions with students and colleagues	Dennison (2109), Goldberg (2003), Lam (2014), Murray (2019), Meer (2018), Tomar (2019)
Positive, confident, friendly, and approachable	Chang (2014), CNDLS (2018), Meador (2018), Orlando (2013), Peterson-Deluca (2016), Teach Thought Staff (2018), Wong (2011), Weimer (2017)
Good-natured and uses humor to help students connect and learn	Cox (2018), Jenkins (2016), Meer (2018), Stanford.edu (2018), Teach Thought Staff (2018), Weimer (2017)
Tireless work ethic and tenacity in getting the things done	Chang (2014), Goldberg (2003), Herman (2011), Meador (2018), Strauss (2011), Tribune (2011), Whitaker (2019)
Leads by example and demonstrates strong ethics and honesty	Azer (2005), CDE (2018), Harrison & Killion (2007), Oda (2017), Orlando (2018), The241Team (2018), Zambas (2018)
Possesses a growth mindset about their own capacity to learn	Ballosi & Hernandez (2015), CDE (2018), Dennison (2019), Harrison & Killion (2007), Raudys (2018), Weimer (2017)
Funny, kind, and authentic personality	Peterson-Deluca (2016), Teach Thought Staff (2018), Wong (2011), Weimer (2017)

Table 2.2. Traits-References

Traits - Keywords and Phrases	References
Creates a creative and trusting learning environment in the classroom	Jenkins (2016), Meer (2018), Lam (2014), Orlando (2013), Peterson-Deluca (2016), Weimer (2017), Wong (2011)
Kind and Compassionate - able to help others get things done without an expectation for reciprocity	Goldberg (2003), Meer (2011), Meador (2018), Orlando (2013), Peterson-Deluca (2016), Weimer (2017), Whitaker (2019)
Kind and caring personality and committed to making a difference for the student	Dennison (2019), Murray (2019), Meer (2018), Teach Thought Staff (2018), Tomar (2019),
Creative and Innovative - able to think out of the box when teaching	Azer (2005), Jenkins (2016), Meador (2018), Oda (2017), Raudys (2018)
Committed to student success and takes responsibility for student academic growth	CDE (2018), Murray (2019), Mitchell et al (2001), Whitaker (2019), Wong (2011)
Independent and assertive and able to get things done without assistance	Harrison & Killion (2007), Meador (2018), Teach Thought Staff (2018), Weimer (2017)
Team player who strives to fit in the culture and work collaboratively with others	Chang (2014), CNDLS (2018), Harrison & Killion (2007), NCSU (2018), Orlando (2013)
Reflective – superior listener and self-reflects to improve teaching methods and student results	Cox (2018), Dennison (2019), Lam (2014), Meador (2018), Meer (2018), Strauss (2011)
Committed to continuous learning & improving	Chang (2014), Goldberg (2003), Orlando (2013), Tharu (2014)
Has a strong ego to survive the hard days and knows teaching is a constant struggle to improve	CDLS (2018), Teach Thought Staff (2017)
Strong Facilitator – A teacher is a sharer of knowledge not a keeper of knowledge	NCSU (2018), Stanford.edu (2018)

Quality Teacher Skills

Behavior theory is the lens used to view teachers as leaders that are made and not born (Thye, 2010). Quality teacher skills are the teachable professional and technical skills described in the literature. The research reveals 20 important quality skills with the more frequently mentioned including excellent preparation, organizational skills, experienced with the right educational credentials, excellent classroom management, able to communicate at all levels, while concurrently encouraging and appreciating diversity in all areas.

Table 2.3. Skills With Documented References for High Quality Teachers	
Sets clear and high expectations for all and inspires confidence and greater learning from students	Chang (2014), Great School Staff (2019), Hattie (2003), Meer (2018), Orlando (2013), Raudys (2018)
Communicates at all levels in the class	Dennison (2019), Great School Staff (2018), Meer (2018), Murray (2019), The241Team (2018), Zambas (2018)
Teachers master teaching methods, subject matter, and how people learn in specific disciplines	Goldberg (2003), Mitchell et al (2001), McCabe (2011), Meer (2018), Stronge (2014), Wong (2011), Whitaker (2019)
Excellent preparation and organizational skills	Chang (2014), CDE (2018), CNDLS (2018), Hattie (2003), Lam (2014), Meer (2018), Raudys (2018), Rice (2003), Stanford.edu (2018), Strauss (2011), Zambas (2018)
Has teaching experience to deliver teaching that results in student engagement and learning	Great School Staff (2018), McCabe (2011), Selvaraju (2016), Rice (2003), Raudys (2018), Wong (2011)
Encourages and appreciates diversity in all areas of the learning environment and differences in student background	Azer (2005), CDE (2018), Dennison (2019), Hattie (2003), Meadows (2018), Zambas (2019)
Builds a respectful and trusting learning environment in the classroom	CDE (2018), Goldberg (2003), Weiner (2017), Orlando (2013), Teach Thought Staff (2018)
Teaches at the appropriate level - stopping to check student understanding	CNDLS (2018), Dennison (2019), Murray (2019)
Draws inferences from examples and models to reinforce learning	Azer (2005), CDE (2018), Hattie (2003), Raudys (2018), Teach Thought Staff (2018)
Has teaching credentials needed to translate into positive student learning outcomes	CDE (2018), Hattie (2003), Rice (2003), Stronge (2018), Zambas (2018)

Table 2.4. Skills - References	
Skills - Keywords and Phrases	References
Provides clear explanations for class assignments and expectations	CDE (2018), CDNLS (2018), Rm241Team (2013), Zambas (2019)
Sets clear, outcome based, objectives for the class and gives it the right amount of focus	Raudys (2018), The241Team (2013), Teaching.org (2018)
Uses educational technology tools to deliver lessons to students in a fun and engaging manner	Cox (2018), Raudys (2018), Teach Thought Staff (2017)
Uses outcome based teaching methods to maximize learning	Reis (2014), The241Team (2013), Teach Thought Staff (2018)
Uses active teaching methods to maximize student engagement and learning	Murray (2019), Teach Thought Staff (2018), Weimer (2017)
Flexible and adapts teaching methods to improve student learning	Meador (2018), Raudys (2018), Strauss (2011), Tribune (2011), Zambas (2018)
Advanced degrees and certifications in science and mathematics improve student outcomes	Ballosi & Hernandez (2015), CDE (2018), Hattie (2003), Rice (2003), Stronge (2018)
Provides concrete, real-life examples to give insight into the knowledge being acquired by the student	Cox (2018), Hattie (2003), Teach Thought Staff (2018)
Excellent communication skills with students, parents, and co-workers	Greats schools Staff (2018), The241Team (2013), Zambas (2018)
Begin class promptly and operates the classroom in a well-organized manner	Goldberg (2003), Raudys (2018), Wong (2011)

Quality Teacher as Leader

Teachers must have attributes and learn leadership skills that model positive and inspiring behaviors that engage subordinates in the execution of learning and change (Riggio, 2010).

These combinations allow them to demonstrate the leadership behaviors that catalyze student success. Teachers love teaching and develop deep bonds with students. High quality teachers, lead by example, model strong ethics, and honesty. Finally, they are collaborative team players who set high expectations, inspire students to greater learning, and establish a creative and trusting environment in the classroom.

The leadership attributes and skills are listed in Table 2.5.

Table 2.5. Leadership Attributes and Skills With Documented References for High Quality Teachers	
Leadership Attributes and Skills - Key Phrases	References
Loves students and develops close and respectful relationships	CDE (2018), Goldberg (2003), Hattie (2003), Jenkins (2016), Lam (2014), Meador (2018), Orlando (2013), Peterson-Deluca (2016), Rm241 Team (2013), Stanford.edu (2018)
Loves to teach and demonstrates deep content knowledge and subject mastery	CDE (2018), Goldberg (2003), Great School Staff (2018), Hattie (2003), Jenkins (2016), Lam (2014), Meer (2018), McCabe (2011), Meer (2018), Peterson-Deluca (2016), The241Team (2013), Strauss (2011), Stronge (2018)
Leads by example and demonstrates strong ethics and honesty	Azer (2005), CDE (2018), Harrison & Killion (2007), Oda (2017), Orlando (2018), The241Team (2018), Zambas (2018)
Team player who strives to fit in the culture and work collaboratively with others	Chang (2014), CNDLS (2018), Harrison & Killion (2007), NCSU (2018), Orlando (2013)
Sets clear and high expectations for all and inspires confidence and greater learning from students	Chang (2014), Great School Staff (2019), Hattie (2003), Meer (2018), Orlando (2013), Raudys (2018)
Creates a creative and trusting learning environment in the classroom	Jenkins (2016), Meer (2018), Lam (2014), Orlando (2013), Peterson-Deluca (2016), Weimer (2017), Wong (2011)

Conclusion

The theories of leadership developed over time identify some aspects of the desired traits and skills required for a successful leader (Bass, 1990). Leadership research reflects how the models of leadership qualities and behaviors deliver the required results (Cherry, 2019). The literature provides evidence that high quality teachers behave very much like the very best leaders (Riggio, 2010). The traits, skills, and attributes frameworks can be used to operationalize what is a high quality teacher. This in turn provides data to make decisions to provide the best human resources, a key component of the educational system to provide a foundation for the success of a school.

One singular definition of quality teacher did not emerge from the literature.

The research defines a quality teacher as having particular traits, skills, and leadership abilities to assure student success.

The definitions are generally grouped into three categories: Traits; Skills; and Leader. First, “Traits” are desirable personal attributes of quality teachers.

Second, “Skills” are the teachable professional and technical skills needed to effectively manage the classroom and deliver instruction collaboratively and effectively.

Third, “Leader” are the traits and skills combinations that allow teachers to model the leadership behaviors that motivate students to learn and catalyze success. A quality teacher is a leader that has the traits, skills, and attributes needed to impact student success. Quality teacher traits are desirable personal attributes of teachers. The more frequently mentioned traits are teachers who love students, love teaching, are patient, kind, funny, confident, caring, have a tireless work ethic, and are committed to life-long learning.

Quality teacher skills are the teachable professional and technical skills described by the research. The most frequently mentioned teacher skills are skills to prepare instruction, organizational skills, experience with the right educational credentials, classroom management, ability to communicate at all levels (with administrators, teachers, parents, and students), and concurrently encouraging and appreciating diversity in all areas.

Quality teachers must have attributes and learn leadership skills that model positive and inspiring behaviors that engage students in the execution of learning and change (Riggio, 2010). These combinations allow teachers to demonstrate the leadership behaviors that catalyze student

success. Teachers as leaders love students and teaching, they are servant leaders. They lead by example and show strong ethics and honesty. Finally, quality teachers are collaborative team players who set high expectations, inspire students to greater learning, and establish a creative and trusting environment in the classroom.

Implications for Private Schools

Private schools need quality teachers because they are singularly the largest factor in the success of the students and consequently the school (Stronge & Hindman, 2003). Of all the factors influencing the success of our schools, teacher quality matters most (Stronge & Xianxuan, 2017). Parents choose private schools on the expectation that the teachers are excellent and the classes are small (Balossi & Hernandez, 2015). Quality teachers can make the difference between a student dropping out or being prepared for college. Finally, there is evidence that highly effective teachers can raise student earnings by 10%-15% over the student's lifetime (Hanusek, 2011).

Many factors contribute to school improvement and student achievement but the single most influential school-based factor is the teacher (Stronge, 2018). Knowing the characteristics, traits, skills, and behaviors of quality teachers is a first step private schools must take to assure they are recruiting, selecting, and retaining quality teachers to ensure student success and ultimately the long-term success of the institution.

References

Search criteria include Google Scholar, NCSU online library, and Google Search and reflect writings from academic journals, business journals, educational and leadership blogs, and instructional videos. The date range of the search 2001 to 2019. The search cast a very broad net to identify sufficient definitions of a quality teacher. Research on desired teacher qualities are predominantly oriented toward public schools as research on private schools are limited. The description of desired teacher qualities extracted from the research require further investigation and vetting by public and private school practitioners.

Recommendations for Future Research

The learning gathered from this literature review of what defines a quality teacher predominantly from the perspective of public schools as information is limited on private schools. Gaining private school practitioner insight into these definitions may provide valuable information on the applicability of these definitions in the private school environment. This can be accomplished by conducting interviews and surveying private school teachers, administrators and parents. The research can then be sorted and prioritized through the use of mixed methods statistical tools such as Q-Methodology.

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CHAPTER 3

Teacher, Administrators and Parents Views of High Quality Teachers in the Context of a Small Private School

Abstract

The characteristics teachers bring to the classroom are an influential factor on student achievement and lead to the success of a school. In a 2017 integrative review, Stronge & Xianxuan identified teacher quality as the most influential factor on the success of a school. To better understand the concept of teacher quality, a study reviewed 382 publications and identified 250 phrases that identify characteristics of teacher quality and were placed into three categories (traits, skills, and leadership) that resulted in a total of 40 individual items (Barto, under submission). One singular definition of quality teacher did not emerge and it was concluded that a quality teacher is defined by having the **Traits, Skills, and Leadership** needed to assure student success. The purpose of the study was to explore the perspectives of teachers, administrators, and parents on the definition of a high-quality teacher in a small private school. Twenty-seven participants comprising 10 teachers, 7 administrators, and 10 parents sorted the 40 statements. The Q-Sort sessions involved a combination of focused group meetings for teachers and administrators and one-on-one sessions with parents. The factor analysis identified 3 factor groups describing teacher quality including: **Caring Motivators; Learning Artisans; and Friends First**. The consensus of the groups place greater emphasis on teachers who are committed to making a difference for the student with two groups giving high marks to the value of building strong relationships with students as a prerequisite for student learning and success. All three groups agreed least with the view that advanced degrees and certifications translate into successful student outcomes.

Keywords

Quality Teacher Attributes, Quality Teacher Skills, Quality Teacher Values, Quality Teacher Leadership

Introduction

There are many factors that impact the success of students and schools at the secondary level. Of all the factors influencing success of schools and students, teacher quality is one of the most important factors (Goldhaber, 2016). Teacher quality has a positive effect on student success, both in school and later in life (Ballosi and Hernandez, 2015). Even if the other factors that impact student success are present, if there is a lack of high quality teachers it will be hard for a school to be successful.

While private preparatory schools differ from public schools in many ways, they are similar in needing the right human resources in place for the school and students to be successful. To be successful private preparatory schools need quality teachers as teacher quality is singularly the largest factor in the success of the students (Ballosi and Hernandez, 2015). Quality teachers can make the difference between a student dropping out or being prepared for college (Barrett & Toma, 2013). Not only do high quality teachers impact completion and preparation, data indicates highly effective teachers can raise student earnings by 10%-15% over the student's lifetime (Hanusek, 2011).

An integrative literature review of 382 publications resulted in more than 250 phrases identified that described teacher quality (Barto, under submission). After categorizing the phrases, a total of 40 unique statements that described teacher quality emerged (Barto, under submission). After reviewing the literature, one singular definition of quality teacher did not surface from the literature review. In a previous article (Barto, under submission) that sought to define a quality teacher, what emerged as a quality teacher is one that has the **Traits, Skills, and Leadership** needed to assure student success. The lack of one common definition and not having a clear understanding of the specific traits, skills, and leadership creates challenges for school administrators to hire the best teachers. Additionally, this can impact the success of students. This can be a problem for all schools however, in small private schools, where there are less faculty it could have an even larger impact.

Quality Teachers in Private Schools

For this study, a high quality teacher will be defined as one having the Traits, Skills, and Leadership needed to assure student success. One singular definition of a high quality teacher did

not emerge from the research. When reviewing the literature on teacher quality, there are many characteristics highlighted. The research identified 40 key phrases that more specifically define teacher quality. There are 20 attributes defining teacher quality. The more frequently mentioned include teachers who love students and teaching, are patient, kind, funny, confident, and caring, have a tireless work ethic, and are committed to lifelong learning. The research also reveals 20 important skills for a quality teacher. They include preparation and classroom management, the right combination of experience and educational credentials, and the ability to communicate at all levels. Finally, there are specific leadership traits important to being a quality teacher. They love students and teaching, lead by example, are team players who set high expectations, and work to inspire students to greater learning.

Student Outcomes of Quality Teachers

There are a number of outcomes that a quality teacher contributes to in secondary schools. The outcomes from having quality teachers impact the success of the student, which ultimately impacts the success of the school. These themes were created by taking the outcomes and categorizing them in the areas of student success. The success of the student outcomes can be categorized into three thematic areas. The first theme is accelerating and sustaining the impact on student learning in math and reading. The second theme is ensuring students are prepared for college. Finally, the third theme is the positive impact quality teachers have on students' future earnings.

Theme 1 - Accelerating and Sustaining Math and Reading Levels

The Rand Corporation conducted research on standardized testing on math and reading tests and estimated that a teacher can have two to three times the impact of any other factor including services, facilities, and even leadership (Rand Education, 2012). Teachers in schools with similar demographic attributes can accelerate math and reading levels one half to one and a half years each academic year (Hanusek, 2011).

Theme 2 - Ensuring Students are Prepared for College

This research is significant for private preparatory schools because quality teachers are singularly the largest factor in the success of the students and consequently the school(Haber,

2016). Quality teachers can make the difference between a student dropping out or being prepared for college (Barrett et al, 2013).

Theme 3 - Impacting Student Future Financial Earnings

Finally, there is evidence that highly effective teachers have a real value effect on the lifetime earnings of a student. It can raise student earnings by 10%-15% over the student's lifetime (Hanusek, 2011).

Purpose and Research Question

The purpose of the study is to understand how teachers, administrators, and parents view a quality teacher. The specific research question is what are the viewpoints of teachers, administrators, and parents toward a quality teacher in a small private school and why? The question is important as identifying and selecting a quality teacher is critical to student success and the ability for a small private preparatory school to sustain itself. This can be a problem for all schools; however, in small private schools, when there are less faculty it could have an even larger impact. The information gained from the QSort allows the school to more carefully recruit and select quality teachers that can contribute to the students' success and growth.

Design and Methods

This study used a q-methodology research design that was introduced by Stephenson (Stephenson, 1935a; Stephenson, 1935b; Stephenson, 1936) that allows the researcher to correlate people rather than tests. According to Brown, Q methodology “provides a foundation for the systematic study of subjectivity” (p. 93) and allows the researcher to gain understanding of their viewpoints toward a topic. The steps in this study include defining the concourse, developing and selecting the q-set, selecting the p-set, developing the instrumentation, data collection by q-sorting, and analyzing and interpreting the data (Bartlett & Deweese, 2014). The aim of Q methodology is to provide a holistic view of participants toward a subject. For this study the viewpoints toward high quality teacher characteristics will be derived from the factor analysis and details describing the participants will be gained from the qualitative responses (Brown, 1996; Ramlo, 2015; Watts & Stenner, 2012).

Concourse. The concourse is the “flow of communicability surrounding any topic” (Brown, 1993, p. 94). An integrative literature research was conducted reviewing a broad range of sources including Google Search, Google Scholar, and NCSU Online Library. The research identified 250 phrases and statements defining teacher quality. McKeown and Thomas (2013) stated that concourse items have unlimited possibilities to be included in a study and for that reason, the scope for this study is defined from the integrative review of literature to allow for replicability.

Q-set. Watts and Stenner (2005) state that the items in the Q-set should be unique and represent the subject being studied. From the 250 phrases, the items were placed into themes. Overlapping statements were removed and some statements were combined. From these final statements in themes, 40 were selected to be used as the Q-set. These 40 statements are used to define a quality teacher. The statements are equally divided into two classifications: teacher attributes; and teacher skills.

P-Set(Participants). This study selected participants purposely from one school. Brown (1993) stated “meanings are not found solely in the categorical cogitations of the observer, but as well (and even more importantly) in the reflections of the individual as he or she sorts the statements in the context of a singular situation (p. 101). The number of participants in a q-study is usually less than the number of statements; however, Watts and Stenner (2005) state q-studies can be effective with a small number of participants. The participants for this study consisted of twenty-seven stakeholders including teachers, administrators, and parents from a small private school that serves students in grades 8-12. The participants included 10 (37%) teachers, 7 (26%) administrators, and 10 (37%) parents.

Instrumentation. The instrumentation was constructed to collect data face-to-face. The q-set was placed onto individual cards. Additionally, a diagram was created to provide the participants with a visual of how cards can be sorted between the values of -5 and +5. The condition of instruction for this study was to “sort the cards based on their view of what is a high quality teacher from what they most agree with to what they least agree with. Survey questions were created to ask the participants their current role with the school, ethnicity, length at the school, and to explain their reasons for assigning cards to the +5 ratings and -5 ratings. The final questions asked the participants if there were any cards difficult to place and if there were statements that they would have thought would have been on the cards that were not present.

Data Collection. The Q-Sort sessions involved a combination of focused group meetings for teachers and administrators and one-on-one sessions with parents. Data was entered into an Excel spreadsheet and qualitative data was recorded in a text document.

Teachers and administrators of the school met off site as part of a multi-day development and team building event. The results of the survey were shared along with a brief tutorial on Q-Sort and the objectives of the exercise. One-on-one sessions were held with parents. In most cases the sessions were done telephonically with only a small number of parents preferring to meet at the school office.

Data Analysis. Data analysis was conducted using KADE. The first step was to enter the data into KADE. Once data was entered, correlations were conducted among the participants. Centroid factor analysis was conducted using 3, 4, and 5 factor solutions to determine the best fit. The scree plot, eigenvalues, percent variance explained, and number of people that significantly loaded were examined for best fit. The three-factor solution was determined to be the best fit. The 3-factor solution was then rotated for the best fit using a Varimax rotation. The individuals that loaded significantly ($p < .05$) on each factor were flagged and retained. Factor characteristics including the number of individuals in each group ($n=x$, group 1, $n=x$, group 2, and $n=x$ group 3) were calculated. Additionally, the average reliability was calculated for each group. Correlations between the factors were calculated. The z-score for each item by factor and the rank of each item in each factor was calculated. Consensus and distinguishing items were calculated. A factor visualization for each composite factor was created. A crib sheet was then created to identify the groups looking at the highest items, lowest items, and distinguishing items. Open-ended questions were then analyzed by item and group to understand the groups in detail. Lastly, each group was provided a descriptive label.

Findings

The research question sought to determine the distinct viewpoints toward the definition of a quality teacher. The research explored 2 and 3 factor solutions. After conducting a 3 factor solution, the research first examined the scree plot and factor characteristics. It was clear that a four factor solution would not be the best fit, however, the researchers needed to conduct a two

factor solution to compare the characteristics and scree plots for the two and three factor solutions. The 2 factor solution had Eigen values ranging from 8.7091 to 1.3642.

Table 1 shows the characteristics of the 3-factor solution using a varimax rotation. A total of 45% of the variance was explained with the 3 factor solution. A total of 23 of the 26 individuals loaded on the 3 factors. Group 1 had the most individuals (n=10) that significantly loaded and explained 19% of the variance in the factor analysis. The 3 factor solution had the best fit.

After reviewing the items and open questions, it was determined the factor analysis revealed there were three distinct viewpoints held toward what is a high quality teacher at a private preparatory school. The viewpoints of the teachers, administrators, and parents toward high quality teachers can be classified as **Caring Motivators; Learning Artisans; and Friends First.**

Table 3.1. Factor Characteristics for 3-Factor Solution					
Factor	Participants Loaded	Eigen Value	Variance	Reliability	SE
1	10	8.7091	33%	.976	.155
2	6	1.6952	7%	.960	.200
3	7	1.3642	5%	.966	.184
Total Variance			45%		

Table 2 shows the correlations between the three factors ranging from .40 to .62. This indicates the factors have moderate relationships.

Table 3.2. Correlations Between Caring Motivators, Learning Artisans, and Friends			
Viewpoints	Caring Motivators	Learning Artisans	Friends First
Caring Motivators	1		
Learning Artisans	.402	1	
Friends First	.623	0.444	1

Factor loading provides a view of the individual's sort as it relates to that viewpoint overall. Table 3, provides the factor loadings for all three groups. For group 1, which explains about 19% of the variances, the loadings ranged from .7469 to .3983. Factor 2 explains 13 % of the total variance and has a total of 6 individuals with significant loadings ranging from .7306 to .3609. The third factor also explained 13% of the total variance and had 7 individuals with the factor loadings ranging from .656 to .4311. Of the participants, three cross-loaded, meaning they loaded on one or more factors and were not considered in the distinctive viewpoints.

Table 3.3. Varimax Rotated 3 Factor Solution with Flagged Factors						
Q-sort	Factor 1	Q-sort	Factor 2		Factor 3	
T1	0.6718	flagged	0.3451		0.4337	
T2	-0.0683		-0.0449		0.5633	flagged
T3	0.2173		0.2956		0.4808	Flagged
T4	0.0636		0.132		0.4467	Flagged
T5	0.4824		0.1292		0.5513	Flagged
T6	0.1689		0.0301		0.4311	Flagged
T7	0.1865		0.4076		0.5035	Flagged
T8	0.1028		0.7306	flagged	0.376	
T9	0.4648		0.4797		0.3989	
T10	0.249		0.4009	flagged	0.0147	
A1	0.4625	flagged	0.4075		0.2006	
A2	0.5548	flagged	-0.127		0.4156	
A3	0.5138		0.1963		0.546	
A4	0.6128	flagged	0.1937		0.1963	
A5	0.711	flagged	0.0391		0.2885	

Table 3.3. Varimax Rotated 3 Factor Solution with Flagged Factors

Q-sort	Factor 1		Factor 2		Factor 3	
A6	0.3346		0.4673		0.3865	
A7	0.4543		0.3414		0.656	Flagged
P1	0.5811	flagged	-0.0534		-0.0017	
P3	0.3983	flagged	0.3023		0.2067	
P4	0.6138	flagged	0.2708		0.3367	
P5	0.0011		0.7065	flagged	-0.0529	
P6	0.3641		0.5721	flagged	-0.0953	
P7	0.0459		0.3609	flagged	0.1002	
P8	0.7469	flagged	0.2525		0.0911	
P9	0.0187		0.4272	flagged	0.2049	
P10	0.5686	flagged	0.2842		-0.0328	
% Explained Variance	19		13		13	

The groups are distinctively different, however, the Caring Motivators and the Friends First both placed greater emphasis that high quality teachers are those committed to making a difference for the student. Both groups rated items related to the value of building strong relationships with students as a prerequisite for student learning and success very similarly.

There were individual items that all participants rated relatively similarly and were identified as consensus items. Table 4 provides a list of the consensus items. Of the 40 items, 8 were rated similarly among the three groups. All groups felt it was important for a high quality teacher to be “Committed to making a difference for the student” and be “flexible and adapt teaching methods to improve student learning”. The group's viewpoints were neutral on teaching methodology and certain teacher traits such as flexibility, commitment to learning and continuous

improvement, strong work ethic and tenacity. Additionally, “all groups felt that a strong ego and having teaching degrees and certificates did not make a high-quality teacher.”

Table 3.4. Items with Consensus across Groups			
Statement	Group 1	Group 2	Group 3
12. Committed to making a difference for the student	2	4	2
8. Teaches at the appropriate level stopping to check student understanding	1	0	0
36. Flexible and adapts teaching methods to improve student learning	1	2	2
18. Committed to continuous learning and improving	-1	0	-2
*28. Tireless work ethic and tenacity to get things done	-1	-2	-1
32. Sets clear outcome based objectives for the class and gives it the right amount of focus	-1	0	-2
19. Has a strong ego to survive the hard days and knows that teaching is a constant struggle to improve	-3	-4	-5
*10. Has teaching degrees and certifications that translate into student learning outcomes	-4	-3	-4

Three Views of Quality Teachers in Private Preparatory School Grades 8-12

Group 1: Caring Motivators

One viewpoint of high-quality teachers is the Caring Motivators. These teachers are leaders and seek to motivate the students but also have a particularly strong sense of caring about the students' success. Group 1 consists of parents (n=5), administrators (n=4), and a teacher (n=1). This distinct view of high quality teachers integrates caring and motivation. Figure 1, provides a view of the composite sorts. This group places far greater emphasis on the traits that make a teacher a leader of students that is able to motivate them to learn and achieve academic success. They place less value on teaching methodology and the education of the teacher,

specifically they felt an advanced degree is not needed to be a high-quality teacher. This grouping explains 33% of the variance in the participants in how the participants view high-quality teachers.

Composite Sort for Factor 1

-5	-4	-3	-2	-1	0	1	2	3	4	5
Has advanced degrees in science and mathematics to improve student	Has teaching degrees and certifications that translate into student	Masters teaching methods, subjects and how people	Sets clear and high expectations for all	Sets clear outcome based objectives for the class and gives it the	Reflective and superior listener, self-reflects to improve	Loves students and develops close and respectful relationships	Committed to making a difference for the student	Excellent communication skills with parents, students and	Funny, kind and authentic personality	Builds a respectful and trusting learning environment in
	Uses outcome based teaching methods to maximize student	Uses active teaching methods to maximize student	Strong facilitator, ateacher is a sharer of knowledge not a	Creative and innovative able to think outside the box	Reflective and superior listener, self-reflects to improve	Loves students and develops close and respectful relationships	Provides clear explanations and expectations for class	Creates a creative and trusting environment in the classroom	Patient and fair in interactions with students and colleagues	
	Has a strong ego to survive the hard days and knows that teaching is a	Uses educational technology tools to deliver lessons	Tireless work ethic and tenacity to get things done	Committed to continuous learning and improving	Excellent preparation and organizational skills	Provides real life example togive insight into knowledge acquired by the	Good nature and uses humor to help students connect and learn	Positive confident friendly and approachable		
	Independent and assertive able to get things done without assistance	Committed to continuous learning and improving	Begins class promptly and operates class in a well organized	Committed to continuous learning and improving	Begins class promptly and operates class in a well organized	Loves to teach and shows content knowledge and subject mastery	Kind and compassionate helps others get things done			
	Has teaching experience to deliver results in student engagement and	Encourages diversity in all areas of learning and respects	Team player that strives to fit into the culture and collaborate	Team player that strives to fit into the culture and collaborate	Team player that strives to fit into the culture and collaborate	Teaches at the appropriate level stopping to check student	Committed to student success and takes responsibility for their			
	Draws inferences from examples and models to reinforce	Draws inferences from examples and models to reinforce	Posses a growth mindset about their own capacity to learn	Posses a growth mindset about their own capacity to learn	Posses a growth mindset about their own capacity to learn	Flexible and adapts teaching methods to improve student learning				

Legend

- * Distinguishing statement at $P < 0.05$
- ** Distinguishing statement at $P < 0.01$
- ▶ z-Score for the statement is higher than all other factors
- ◀ z-Score for the statement is lower than in all other factors

Figure 3.1. Composite Sort of Participants in Factor 1

The items that were distinguishing for the Caring Motivators are presented in Table 5. This group distinguishes itself by placing a clear emphasis on the teacher building a respectful and trusting learning environment, is one who is authentic, kind and fair with students, and communicates well. It rates teaching methods, such as the use of technology, active teaching methods, and outcome based teaching, less important.

Table 3.5. Caring Motivators - Group 1- Distinguishing Items			
Statement	Grp 1	Grp 2	Grp 3
7. Builds a respectful and trusting learning environment in the classroom	5	1	4
25. Funny, kind and authentic personality	4	-3	2
22. Patient in fair in interactions with students and colleagues	4	-1	1
39. Excellent communication skills with parents, students, and co-workers	3	-1	-1
31. Provides clear explanations and expectations for class assignments	2	1	0
23. Good nature and uses humor to help students connect and learn	2	-1	1
11. Kind and compassionate helps others get things done	2	-2	3
14. Committed to student success and takes responsibility for their academic growth	2	3	1
2. Communicates well at all learning levels in the class	1	3	0
24. Leads by example and demonstrates strong ethics and honesty	0	2	2
6. Encourages diversity in all areas of learning and respects differences in student background	-1	1	3
1. Sets clear and high expectations for all	-2	5	2
20. Strong facilitator, a teacher is a sharer of knowledge not a keeper of knowledge	-2	2	-3
33. Uses educational technology tools to deliver lessons to students	-2	-1	0

Table 3.5. Caring Motivators - Group 1- Distinguishing Items			
Statement	Grp 1	Grp 2	Grp 3
in a fun and engaging manner			
35. Uses active teaching methods to maximize student learning.	-3	-2	-1
34. Uses outcome based teaching methods to maximize student engagement and learning	-4	-2	-4

The highest rated items for the Caring Motivators are presented in Table 6. The highest rated items included teachers able to build a respectful and trusting learning environment and having funny, kind, and personality. This group highly rated the ability of the teacher to communicate with parents, students, and co-workers. One administrator stated “Patient and fair I think are critical traits for a teacher as well as a positive attitude and approachableness. The teacher must be open, kind, and compassionate and be ready to capture the hearts of the students.” A parent wrote, “Kids can see past fakeness. They won’t respect you if you are not kind.”

Table 3.6. Group 1- Caring Motivators - Highest Rated Items			
Statement	Grp 1	Grp 2	Grp 3
7. Builds a respectful and trusting learning environment in the classroom	5	1	4
25. Funny, kind and authentic personality	4	-3	2
22. Patient & fair in interactions with students and colleagues	4	-1	1
39. Excellent communication skills with parents, students, & co-workers	3	-1	-1
30. Creates a creative and trusting environment in the classroom	3	0	4
27. Positive confident friendly and approachable	3	1	3

Table 7 shows the lowest rated items for Group 1 are fairly consistent with the other two groups. The Caring Motivator group appears to place less importance on the learning process,

technical skills, and advanced degrees. The lowest rated items included the learning outcome value of teachers mastering subject matter and teaching methods and the importance of advanced degrees and certifications on learning. An administrator said, “ it does not matter how many degrees and skills teachers have if they do not have the proper attitude toward kids. “ A parent supports this view “I don’t think degrees make a good teacher.”

Table 3.7. Group 1 - Caring Motivators - Lowest Rated Items

Statements	Grp 1	Grp 2	Grp 3
3. Masters teaching methods, subjects and how people learn in certain disciplines	-3	0	1
35. Uses active teaching methods to maximize student learning.	-3	-2	-1
19. Has a strong ego to survive the hard days and knows that teaching is a constant struggle to improve	-3	-4	-5
33. Uses outcome based teaching methods to maximize student engagement and learning	-4	-2	-4
4. Has teaching degrees and certifications that translates into student learning	-4	-3	-4
37. Has advanced degrees in science and math to improve student outcomes	-5	-5	-2

Caring Motivators are composed of 10 participants including 1 teacher, 4 administrators, and 5 parents, explaining 33% of the variances in the group. Motivators place greater emphasis on the traits the teachers have that allow them to reach the students and motivate them to learn and succeed in the classroom. This group distinguishes itself by placing less value on teaching methods, educational technologies, and advanced degrees. Caring Motivators are in consensus with the other two groups in agreeing less with the value of advanced degrees as a definition of a quality teacher.

Group 2: The Learning Artisans

Learning Artisans emphasize the skills and learning process knowledge that help students learn and succeed in the classroom. Group 2 comprises 2 teachers and 4 parents and reflects 7% of the variance explained by the three perspectives. No administrators loaded into this group. Figure 2,

provides a view of the composite sorts. The group can be described as placing greater focus on the skills needed to deliver knowledge to students in a disciplined and yet still very caring manner. Supporting statements from participants include “setting clear and high expectations for all... loves teaching and shows content mastery... committed to student success ...and communicates well at all levels.”

Composite Q for Factor 2

-5	-4	-3	-2	-1	0	1	2	3	4	5
Has advanced degrees in science and mathematics to improve student	**◀ Independent and assertive able to get things done without assistance	*◀ Team player that strives to fit into the culture and collaborate	Has teaching experience to deliver results in student engagement and	**◀ Good nature and uses humor to help students connect and learn	**◀ Masters teaching methods, subjects and how people	**◀ Builds a respectful and trusting learning environment in	**◀ Creative and innovative able to think outside the box	**◀ Committed to student success and takes responsibility for their	Committed to making a difference for the student	**◀ Sets clear and high expectations for all
	*◀ Has strong ego to survive the hard days and knows that teaching is a	Has teaching degrees and certifications that translate into student	**◀ Uses outcome based teaching methods to maximize student	Excellent communication skills with parents, students, and	**◀ Teaches at the appropriate level stopping to check student	* Encourages diversity in all areas of learning and respects	**◀ Strong facilitator, a teacher is a sharer of knowledge not a	**◀ Communicates well at all learning levels in the class	**◀ Loves to teach and shows content knowledge and subject mastery	
	**◀ Funny, kind and authentic personality	Tireless work ethic and tenacity to get things done	* Uses active teaching methods to maximize student	Uses educational technology tools to deliver lessons	Provides clear explanations and expectations for class	Reflective and superior listener, self-reflects to improve	Leads by example and demonstrates strong ethics and honesty	Loves Students and develops close and respectful relationships		
			**◀ Kind and compassionate helps others get things done	Draws inferences from examples and models to reinforce	**◀ Creates a creative and trusting environment in the classroom	Provides real life example to give insight into knowledge acquired by the	Felexible and adapts teaching methods to improve learning			
			* Posses a growth mindset about their own capacity to learn	**◀ Patient in fair in interactions with students and colleagues	Committed to continuous learning and improving	Excellent preparation and organizational skills				

Legend
 * Distinguishing statement at P < 0.05
 ** Distinguishing statement at P < 0.01
 ▶ z-Score for the statement is higher than all other factors
 ◀ z-Score for the statement is lower than in all other factors

Figure 3.2. Composite Q-Sort for Learning Artisans - Group 2

The items that were distinguishing for the Learning Artisans are presented in Table 8. The group can be described as placing greater focus on the skills needed to deliver knowledge to

students in a disciplined and yet still very caring manner. Participant views were supported by statements describing the rated items. Process matters to this group. "...one must have a passion for what you do and know the content to inspire students. ..the objective is to inspire students by setting high objectives and holding students to them.. teacher preparation is very important."

Table 3.8. Group 2 - Learning Artisans - Distinguishing Items

Statement	Grp 1	Grp 2	Grp 3
1. Sets clear and high expectations for all	-2	5	2
26. Loves to teach and shows content knowledge and subject mastery	1	4	1
14. Committed to student success and takes responsibility for their academic growth	2	3	1
2. Communicates well at all learning levels in the class	1	3	0
13. Creative and innovative able to think outside the box	-1	2	0
20. Strong facilitator, a teacher is a sharer of knowledge not a keeper of knowledge	-2	2	-3
17. Reflective and superior listener, self-reflects to improve student results	0	2	1
7. Builds a respectful and trusting learning environment in the classroom	5	1	4
6. Encourages diversity in all areas of learning and respects differences in student background	-1	1	3
27. Positive confident friendly and approachable	3	1	3
3. Masters teaching methods, subjects and how people learn in certain disciplines	-3	0	-1
30. Creates a creative and trusting environment in the classroom	3	0	4
23. Good nature and uses humor to help students connect and learn	2	-1	1

Table 3.8. Group 2 - Learning Artisans - Distinguishing Items			
Statement	Grp 1	Grp 2	Grp 3
22. Patient in fair in interactions with students and colleagues	4	-1	1
34. Uses outcome based teaching methods to maximize student engagement and learning	-4	-2	-4
35. Uses active teaching methods to maximize student learning.	-3	-2	-1
11. Kind and compassionate helps others get things done	2	-2	3
16. Team player that strives to fit into the culture and collaborate	0	-3	-1
25. Funny, kind and authentic personality	4	-3	2
15. Independent and assertive able to get things done without assistance	-2	-4	-1
19. Has a strong ego to survive the hard days and knows that teaching is a constant struggle to improve	-3	-4	-5

The items that were distinguishing for the Learning Artisans are presented in Table 9. Group 2 highest ratings show the focus on the importance of learning practices and as such are consistent with the distinguishing statements such “setting clear and high expectations”, and demonstrating a love of teaching and “content and knowledge and subject mastery”.

Table 3.9. Group 2: Learning Artisans - Highest Rated			
Statement	Grp 1	Grp 2	Grp 3
1. Sets clear and high expectations for all	-2	5	2
12. Committed to making a difference for the student	2	4	2
26. Loves to teach and shows content knowledge and subject mastery	1	4	1
14. Committed to student success and takes responsibility for their academic growth	2	3	1
2. Communicates well at all learning levels in the class	1	3	0
21. Loves students and develops close and respectful relationships	1	3	5

The items that were the lowest rated items for the Learning Artisans are presented in Table 10. Learning Artisans appear to place more importance on the learning process, technical skills, and much less on advanced degrees and certifications. One participant in the group is a teacher with a doctoral degree who shared similar views. This group rated 3 statements lowest related to advanced degrees connected to student success, technical degrees and certifications translating to teaching success, and the value of teamwork and a collaborative culture on teacher quality. Statements from the participants support these views such as “...I don’t place a lot of emphasis on teacher credentials and experience as that does not translate into an effective teacher...A degree in science or math does not make a great teacher.”

Table 3.10. Group 2: Learning Artisans - Lowest Rated Items

Statement	Grp 1	Grp 2	Grp 3
Lowest Rated Items			
10. Has teaching degrees and certifications that translate into student learning outcomes	-4	-3	-4
16. Team player that strives to fit into the culture and collaborate	0	-3	-1
16. Funny, kind and authentic personality	4	-3	2
10. Independent and assertive able to get things done without assistance	-2	-4	-1
19. Has a strong ego to survive the hard days and knows that teaching is a constant struggle to improve	-3	-4	-5
37. Has teaching degrees and certifications that translate into student learning outcomes	-5	-5	-2

Learning Artisans are composed of 6 participants including 2 teachers and 4 parents, explaining 7% of the variances in the group. This group places more importance on the learning process, technical skills, and much less on advanced degrees. They emphasize the skills the teachers have that allow them to reach the students and motivate them to learn and succeed in the classroom. For this group teacher skills and the process of delivering instruction have the greatest impact on student success. Degrees and certifications are table stakes and are not as important.

Group 3: The Friends First

This group is called “Friends First” as they agree most with the importance of developing close relationships with the students as a prerequisite to successful learning. Participant views support the importance of teachers establishing close relationships. A parent commented, “It is the most important attribute of a successful and effective teacher.” A teacher participant said “students learn more in a loving, respectful, and safe environment.” Group 3 is made up of 5 teachers and 1 Administrator and reflects 5% of the variance of the study. Figure 3, provides a view of the composite sorts.

Composite Q for Factor 3

-5	-4	-3	-2	-1	0	1	2	3	4	5
Has a strong ego to survive the hard days and knows that teaching is a	* Uses outcome based teaching methods to maximize student	** ◀ Begins class promptly and operates class in a well organized	* ◀ Sets clear outcome based objectives for the class and gives it the	** ▶ Uses active teaching methods to maximize student	Creative and innovative able to think outside the box	* Good Nature and uses humor to help students connect and learn	Leads by example and demonstrates strong ethics and honesty	** ▶ Kind and compassionate helps others get things done	Creates a creative and trusting environment in the classroom	** ▶ Loves students and develops close and respectful relationships
	Has teaching degrees and certifications that translate into student	** ◀ Draws inferences from examples and models to reinforce	* ◀ Committed to continuous learning and improving	Excellent communication skills with parents, students, and	Teaches at the appropriate level stopping to check student	** ▶ Has teaching experience to deliver results in student engagement and	Committed to making a difference for the student	Positive confident friendly and approachable	** Builds a respectful and trusting learning environment in	
	Strong facilitator; a teacher is a sharer of knowledge not a	** ◀ Excellent preparation and organizational skills	** ◀ Has advanced degrees in science and mathematics to improve student	Team player that strives to fit into the culture and collaborate	Uses educational technology tools to deliver lessons	Reflective and superior listener; self-reflects to improve	Flexible and adapts teaching methods to improve student learning	** ▶ Encourages diversity in all areas of learning and respects		
		** ▶ Has advanced degrees in science and mathematics to improve student	** ◀ Posses a growth mindset about their own capacity to learn	Tireless work ethic and tenacity to get things done	Provides clear explanations and expectations for class	* Patient in fair in interactions with students and colleagues	** Sets clear and high expectations for all			
				Masters teaching methods, subjects and how people	Provides real life example to give insight into knowledge acquired by the	** ◀ Committed to student success and takes responsibility for their	** Funny, kind and authentic personality			
				Independent and assertive able to get things done without assistance	** ◀ Communicates well at all learning levels in the class	Loves to teach and shows content knowledge and subject mastery				

Legend

- *** Distinguishing statement at P < 0.05
- **** Distinguishing statement at P < 0.01
- ▶ z-Score for the statement is higher than all other factors
- ◀ z-Score for the statement is lower than in all other factors

Figure 3.3. Composite Q-Sort for Friends First - Group 3

The Friends First group has 3 distinguishing statements that separate them from the other two groups. The three main distinguishing items are related to the teacher’s love of students, creating a respectful and trusting learning environment, and a strong sense of kindness and compassion. Participants supporting statements exemplify the value this group places on close relationships with students: “If you get their heart they will do anything for you; and, students learn more in a loving, respectful and safe environment.”

Table 3.11. Group 3 - Friends First - Distinguishing Items			
Statement	Grp 1	Grp 2	Grp 3
21. Loves students and develops close and respectful relationships	1	3	5
7. Builds a respectful and trusting learning environment in the classroom	5	1	4
11. Kind and compassionate helps others get things done	2	-2	3
6. Encourages diversity in all areas of learning and respects differences in student background	-1	1	3
1. Sets clear and high expectations for all	-2	5	2
25. Funny, kind and authentic personality	4	-3	2
23. Good nature and uses humor to help students connect and learn	2	-1	1
5. Has teaching experience to deliver results in student engagement and learning	-2	-2	1
22. Patient in fair in interactions with students and colleagues	4	-1	1
14. Committed to student success and takes responsibility for their academic growth	2	3	1
2. Communicates well at all learning levels in the class	1	3	0
35. Uses active teaching methods to maximize student learning.	-3	-2	-1
32. Sets clear outcome based objectives for the class and gives it the right amount of focus	-1	0	-2
18. Committed to continuous learning and improving	-1	0	-2

Table 3.11. Group 3 - Friends First - Distinguishing Items			
Statement	Grp 1	Grp 2	Grp 3
4. Excellent preparation and organizational skills	0	1	-2
37. Has advanced degrees in science and mathematics to improve student outcomes	-5	-5	-2
29. Posses a growth mindset about their own capacity to learn	0	-1	-2
40. Begins class promptly and operates class in a well organized manner	0	0	-3
9. Draws inferences from examples and models to reinforce student learning	-1	-1	-3
20. Strong facilitator, a teacher is a sharer of knowledge not a keeper of knowledge	-2	2	-3
34. Uses outcome based teaching methods to maximize student engagement and learning	-4	-2	-4

The Friends First group can be described as assigning the greatest value to loving students and developing close and respectful relationships. The highest rankings are identical to the distinguishing items. They focus on building trust with the student. They value kindness and are positive, confident, and approachable. Participant views were supported by statements describing the rated items: “It’s important for teachers to have a trusting relationship for the class to be a success; I believe everything starts with relationships and love for students.”

Table 3.12. Group 3: Friends First - Highest Rated Items

Statements	Grp 1	Grp 2	Grp 3
21. Loves students and develops close and respectful relationships	1	3	5
7. Builds a respectful and trusting learning environment in the classroom	3	0	4
30. Creates a creative and trusting environment in the classroom	3	0	4
11. Kind and compassionate helps others get things done	2	-2	3
27. Positive confident friendly and approachable	3	1	3
6. Encourages diversity in all areas of learning and respects differences in student background	-1	1	3

The Friends First group agreed least with the importance of teaching process, methods, and academic degrees as measures of teacher quality. The group distinguishes itself by its low agreement with statements such as “begins classes promptly, a teacher is a strong facilitator, and a teacher has teaching degrees and certifications.” Participant views were supported by statements describing the rated items: “it’s important for the teacher to know the material, but that does not mean that they need an advanced degree. In my opinion degrees and certificates are not as essential as love, patience, and experience. Kids respond well to a teacher who makes them feel at first comfortable and then interested in helping them learn.”

Table 3.13. Group 3 - Friends First - Lowest Rated Items			
Statement	Grp 1	Grp 2	Grp 3
9. Draws inferences from examples and models to reinforce student learning	-1	-1	-3
20. Strong facilitator, a teacher is a sharer of knowledge not a keeper of knowledge	-2	2	-3
40. Begins class promptly and operates class in a well organized manner	0	0	-3
34. Uses outcome based teaching methods to maximize student engagement and learning	-4	-2	-4
10. Has teaching degrees and certifications that translate into student learning outcomes	-4	-3	-4
19. Has a strong ego to survive the hard days and knows that teaching is a constant struggle to improve	-3	-4	-5

The Friends First group is made up of 5 teachers and 1 Administrator and reflects 5% of the variance of the study. They are called “Friends First” as they agree most with the importance of developing close relationships with the students as a prerequisite to successful learning. This group places the greatest value on the teachers who truly invest in building a deep connection with the student as the primary means for learning success. Getting students to learn is all built around the connection between the teacher and student. Learning methods, class organization and classroom environment are less important.

Conclusions

There are many factors that impact the success of students and schools at the secondary level. Of all the factors influencing success of schools and students, teacher quality is one of the most important factors (Goldhaber, 2016). Teacher quality has a positive effect on student success, both in school and later in life (Ballosi and Hernandez, 2015). Even if the other factors that impact student success are present, if there is a lack of high quality teachers it will be hard for a school to be successful.

While private preparatory schools differ from public schools in many ways, they are similar in needing the right human resources in place for the school and students to be successful. To be successful private preparatory schools need quality teachers and teacher quality is singularly the largest factor in the success of the students (Ballosi and Hernandez, 2015). Quality teachers can make the difference between a student dropping out or being prepared for college (Barrett N., & Toma E., 2013). Not only do high quality teachers impact completion and preparation, data indicates highly effective teachers can raise student earnings by 10%-15% over the student's lifetime (Hanusek, 2011).

How quality teachers contribute to the success of the school and students can be categorized into 3 themes. The first theme is accelerating and sustaining the impact on student learning in math and reading. Teachers in schools with similar demographic attributes can accelerate math and reading levels one half to one and a half years each academic year (Hanusek, 2011). The second theme is ensuring students are prepared for college. Quality teachers can make the difference between a student dropping out or being prepared for college (Barrett, & Toma, E.F., 2013). Finally, the third theme is the positive impact quality teachers have on student future earnings. There is evidence that highly effective teachers have a real value effect on the lifetime earnings of a student. It can raise student earnings by 10%-15% over the student's lifetime (Hanusek, 2011).

To better understand the concept of teacher quality, a review of 382 publications identified 250 phrases that identify characteristics of teacher quality and were placed into themes that resulted in a total of 40 individual items (Barto, 2020). One singular definition of quality teacher did not emerge from the literature review. The research defines a quality teacher as one having the **Traits, Skills, and Leadership** needed to assure student success.

The purpose of the Q-Sort study was to explore the perspectives of teachers, administrators, and parents on the definition of a quality teacher in a small private school. Twenty-seven participants comprising 10 teachers, 7 administrators, and 10 parents participated in a prioritizing Q-Sort exercise and factor analyzed. The Q-Sort sessions involved a combination of focused group meetings for teachers and administrators and one-on-one sessions with parents. The factor analysis identified 3 factor groups describing teacher quality including: **Caring Motivators**; **Learning Artisans**; and **Friends First**. The consensus of the groups place greater emphasis on teachers who are committed to making a difference for the student with two groups

giving high marks to the value of building strong relationships with students as a prerequisite for student learning and success. All three groups agreed least with the view that advanced degrees and certifications translate into successful student outcomes.

There are a number of outcomes that a quality teacher contributes to in secondary schools. The outcomes from having quality teachers impact the success of the student, which ultimately impacts the success of the school. These themes were created by taking the outcomes and categorizing them in the areas of student success. The success of the student outcomes can be categorized into three thematic areas. The first theme is accelerating and sustaining the impact on student learning in math and reading. The second theme is ensuring students are prepared for college. Finally, the third theme is the positive impact quality teachers have on student future earnings.

Implications for Practice

There are many factors that impact the success of students and schools at the secondary level (Goldhaber, 2017, Havik & Westergard, 2019). Of all the factors influencing success of schools and students, teacher quality is one of the most important factors (Stronge & Xianxuan, 2017). Teacher quality has a positive effect on student success, both in school and later in life (Ballosi and Hernandez, 2015). Even if the other factors that impact student success are present, if there is a lack of high quality teachers it will be hard for a school to be successful.

While private preparatory schools differ from public schools in many ways, they are similar in needing the right human resources in place for the school and students to be successful. To be successful private preparatory schools need quality teachers and teacher quality is singularly the largest factor in the success of the students (Ballosi and Hernandez, 2015). Quality teachers can make the difference between a student dropping out or being prepared for college (Barrett N., & Toma E., 2013). Not only do high quality teachers impact completion and preparation, data indicates highly effective teachers can raise student earnings by 10%-15% over the student's lifetime (Hanusek, 2011).

The results from this study generated three viewpoints toward high-quality teachers. Those groups saw high-quality teachers as Caring Motivators, Learning Artisans, and Friends First. To ensure that parents, faculty and administrators view teachers as high-quality, it is important to identify a mix of teachers that represent those characteristics. The right mix of the

teachers is essential to ensure all viewpoints will be satisfied. Schools should have a human resources process for identifying and selecting teachers with the right skills and attributes that fit within the groups to provide a diverse faculty that will be viewed as high-quality. How the human resource process translates the need for quality teachers into the selection process of defining positions, communicating to both candidates and interviewers, and creating the selection methodology is key to getting the right teachers. Specifically, in the interview process, potential employees could be asked questions in relation to the cards that were used in this sorting process. For example, How have you in the past “Built a trusting and respect learning environment”? How have you “set clear and high expectations for all the students”. Give an example of where you have “developed a relationship with a student that support student success”. It is also important that teachers understand that administrators view high-quality teachers in multiple ways and that these different views can be appropriate based on situations and the specific students. There are a number of outcomes that a quality teacher contributes to in secondary schools. The success of the student outcomes can be categorized into three thematic sets. The first theme is accelerating and sustaining the impact on student learning in math and reading. The second theme is ensuring students are prepared for college. Finally, the third theme is the positive impact quality teachers have on student future earnings. The implication for the school and teachers is ensuring these themes are clearly communicated and incorporated into the operating practices of the school. Developing and implementing a practical selection process for teachers is critically important. Finding the right mix of Caring Motivators, Learning Artisans, and Friends First teachers is essential to the longevity and success of the school.

Training could be developed to provide teachers and administrators a better understanding of what the characteristics that individuals view as those of high-quality teachers. This training could provide a better understanding that high quality teachers are diverse and have different characteristics. Additionally, this training could be used to help school leaders and faculty communicate with parents and students from perspectives that will ensure the school is viewed as high quality.

Finally, the school can use the viewpoints for high-quality teachers to market the school, recruit students, and recruit human resources. Since parents, administrators, and faculty all fall in different viewpoints, it is important to communicate with high-quality teachers who have characteristics from each viewpoint. For example, if we only messaged about high-quality and

processes of teaching, it would miss the individuals that view caring motivators or friends first as essential to high-quality instruction.

Implications for Future Research

There are a number of implications for future research regarding the definition and selection of quality teachers. Creating and evaluating a method for incorporating the three groups into the interview and using the information to develop a means for the selection of new teachers.

Examining teachers based on the three perspectives could provide evidence-based data to see if certain characteristics are rated to the success of students. Additionally, a study could examine the relationship of specific items rated high or low by teachers and items that were either consensus or distinguishing the factors with student success.

Linking rewards and bonuses to demonstrated quality teacher behavior and positive student outcomes. Additionally, The 2020 Covid-19 pandemic has created new realities and restrictions on schools and teachers. Will these new realities significantly impact the definitions of quality teachers or cause a change in how teachers, parents and administrators define a quality teacher? How will social distancing impact the ability of teachers to establish close bonds with students? What impact will it have on the ability to attract and retain quality teachers?

See Appendix 1

Chapter 3 - References

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CHAPTER 4

Attracting and Hiring High-Quality Teachers in Private Schools: Translating Research to Practical Application

Abstract

This case study describes how a small private preparatory school conducted an evidence-based inquiry to develop an intervention for a systematic improvement project that seeks to increase high-quality teachers' retention. The school faced a challenge to replace over half of their teachers in nine months for various reasons such as relocation, retirement, and new job opportunities. The new teachers hired in this period had a churn rate of nearly 50%. Administrators reported that this turnover of new teachers is based partly on the lack of students achieving positive learning outcomes and the lack of connection to the students. The school needed to ensure they had the human resources necessary to succeed as measured by high levels of student success. The school leveraged evidence-based data from a review of the current literature that examined definitions of teacher quality and participatory research outcomes with teachers, administrators, and parents to better understand their viewpoints of a high-quality teacher in this specific setting. The data from process mapping, the literature, and research questioned the current hiring process and how the school was operationalizing a high-quality teacher in this process. The Carnegie Foundation's "Six Core Principles of Improvement," the Spiral Human Improvement Model. (Marker, Villachica, Stepich, & Stanton, 2014), and the Human Performance Improvement (HPI) model (Wilmoth, Prigmore, & Bray, 2002) guided this project. Moving from research to practice is grounded in the Carnegie Foundation "The Six Core Principles of Improvement" (Bryk, Gomez, Grunow, & Lemahieu, 2015) and implemented with the Spiral Human Performance Improvement Model (Marker et al, 2014). The school has since used the evidence-based data to incorporate high-quality teachers' qualities and the viewpoints of parents, teachers, and administrators into the hiring process using behavior-based interviewing (Stronge & Hindman, 2006, Klassen & Kim, 2019). To better understand the problem, the school mapped the hiring process. The school is in the process of implementing the Six Core Principles of improvement with the: **PIAN** stage starting and completing early first quarter, 2022; the **DO** stage starting and ending in the second quarter, 2022; **Study** stage in the third quarter, 2022; and the **ACT** stage completing the fourth

quarter, 2022. While retention of faculty has increased due to the current state of education during COVID-19, it is hard to determine the impact on student outcomes. The school has continued student enrollment growth, has not seen any issue with the retention of current students, and is on track to meet its strategic academic and business goals.

Keywords - High-quality teacher, Selection, Private School

Translating Research to Practical Application: High-Quality Teachers for Schools

Teachers are one of the foundational resources for schools. In a study by Stronge and Xianxuan (2017) it was stated that of all the factors influencing the success of school and student success, teacher quality mattered most. The context of this article is that a small urban private school is facing the need to hire and retain quality teachers to ensure the schools success. The relocation of several teachers in one academic semester created openings and administrators were challenged to fill those positions in a short time frame. In less than nine months, the new teachers were hired; however, those newly hired teachers were not being retained at the school. Using the practice of exit interviews, the teachers reported several reasons for separation emerged with these new teachers. Two common themes appeared one being teachers did not create a bond with the students and two, the students were not achieving positive learning outcomes. Teacher turnover, over 50% with the new hires, and impact on student performance was concerning to school leadership and prompted the investigation into the school's process for attracting, selecting and retaining quality teachers.

This case study describes how a small, private preparatory school re-engineered a process for approaching the recruitment, selection, and retention of teachers based on the implementation of data-driven evidence from a comprehensive review of research on high-quality teachers, and the results of a Q-Methodology study to better understand how teachers, administrators, and parents view high quality teachers. This evidence was then integrated into a process that used an improvement science and human performance improvement frameworks to make the research findings actionable.

Moving Research to Practice

The research for this case includes evidence from previous research that was synthesized using the approach of an integrative review of literature and the findings from a primary research study that implemented an approach of q-methodology to understand parents, administrators, and teachers viewpoints of high-quality teachers. Additionally, improvement science methods in the framework of human performance improvement were used to examine the organization to provide the specific context to solve the problem of recruiting, selecting, and retaining high quality teachers.

Evidence from Literature. Torraco's (2005 & 2016) steps to conduct an integrative review of literature were used to define "what is a high quality teacher" and "what are the specific characteristics, personal qualities, and knowledge assets of high quality teachers." This process revealed 40 key phrases that more specifically defined quality teachers. The literature also revealed There were 20 attributes defining teacher quality with the more frequently mentioned including teachers who love students and teaching, are patient, kind, funny, confident and caring, have a tireless work ethic, and are committed to life-long learning. The research also reveals 20 important skills including preparation and classroom management, the right experience with the appropriate educational credentials and being able to communicate at all levels. Lastly, the literature identified leadership traits such as leading by example, being a team player, setting high expectations, and inspiring students to greater learning.

Viewpoints of Teachers, Administrators, and Parents. Using these definitions, characteristics, personal qualities, and knowledge assets and qualities a list of items (a concourse) was created and a Q-Sort (Brown, 1993) was conducted involving multiple stakeholders (teachers, administrators, and parents). The participants in the Q-Sort sorted the statements and the analysis developed viewpoints to allow those with similar distinct perspectives to be grouped. The study revealed three specific viewpoints including (1) high-quality teachers are the caring motivators (2) high quality teachers are learning artisans, and (3) high quality teachers are friends first that value loving students and developing close and respectful relationships. These perspectives were then operatized into the recruitment and selection process.

Research to Practice Using Improvement Frameworks. This example of moving from research to practices integrated the Human Performance Improvement Model(Van Tiem, D. M.,

Moseley, J. L., Dessinger, J. C., 2012) with “The Six Core Principles of Improvement” found in the Carnegie Foundation’s book “LEARNING TO IMPROVE: How America’s Schools Can Get Better At Getting Better (Bryk, Gomez, Grunow, & Lemahieu, 2015).

The difficulties of implementing research-based interventions to spur sustainable improvements in education has resulted in some scholarly practitioners investigating methods to enhance organizational capacity by embracing the discipline of improvement science (Bryk et al, 2015) which is based on the work of Deming, Juran, Ishikawa, and Shewhart. These founders of the quality improvement movement applied the same concepts to a range of manufacturing industries such as automobile manufacturing, healthcare products and later the healthcare service industries (Dolle, Eller-White, Evans-Santiago, Flushman, Guise, Hegg, Myhre, Ramirez, Won, 2018) and now these same concepts can be used to improve education.

The process of applying research into practice can also be viewed in the lens of technology transfer. The transfer of technology is the process of disseminating research and technology from the researcher or the owner of the technology to the organization that will use the technology to improve (Bozeman, 2000). To transfer ideas, processes, or products to real-world environments is challenging, even for those with extensive experience. The importance of implementation of education research has gained recognition and traction as practitioners seek better ways to assure research-informed, evidence-based work can be operationalized in their environments. In education the goal of improvement in science is to try new ideas and examine how they work in a specific setting. Improvement science starts with an aim or goal, identifying ways to measure that goal, and examining specific changes to see what will improve your goals. This is incorporated in a plan, study, do, act cycle. Improvement science can take evidence-based research and provide a framework to suggest a change and then examine if a change to a process creates an improved outcome. This provides an understanding of how to examine a specific problem from a user centered approach that views the system that is producing the outcomes while focusing on variation stressing the importance of measuring and using data to make improvements in a rapid manner. (Bryk, 2015). The framework from the Carnegie Foundation helps fill the gap that is often present and is highlighted in “From Research to Practice” shows that educators “want to implement practices grounded in solid evidence of success. However they are hampered by a lack of training or encouragement. Teachers need professional development and other support to do it. While basic research methods are the same for most fields, the

complexities of teaching and learning as well as complicated ethical and practical considerations make research in education challenging” (Fleischman, Kohlmoos & Rotherham, 2003, p2). The Six Core Principles of Improvement are shown on Figure 1. The basic tenets of the process involve understanding the problem, defining a manageable goal, and then testing small ideas to change (Dixon & Palmer, 2020).

The principles start with identifying the problem to be solved or the goal to be gained. It then aims to advance efficacy at scale by determining what works for whom and under what conditions. The third principle is the analysis of the system that produces the current outcomes. Principle four calls for installing measures of key outcomes and processes to track if the change is an improvement. Principle five is the introduction of rapid cycles of experiments such as the Plan, Do, Study, Act cycle to learn fast, fail fast and improve quickly. The sixth principle is accelerating improvements by embracing the wisdom of crowds and tapping into other resources in the community. (Carnegie Foundation, n.d.). In this case, an accelerated learning community could be made up of other small private schools trying to solve the same problem with recruitment, selection, and retention.

The Carnegie Foundation Six Core Principles of Improvement
1. Make the work problem - specific and user-centered.
2. Variation in performance is the core problem to address.
3. See the system that produces the current outcomes.
4. We cannot improve at scale what we cannot measure.
5. Anchor practice improvement in disciplined inquiry, PDSA.
6. Accelerate improvements through networked communities.

Figure 4.1. Carnegie Foundation Six Core Principles of Improvement

(<https://www.carnegiefoundation.org/our-ideas/sox-core-principles-improvements/>)

The next step in solve this problem was merging of the Six Core Principles of Improvement with the Spiral Human Performance Improvement (HPI) model. The International Society of Performance Improvement (ISPI) defines HPI as a “systematic approach to improving

productivity and competence, uses a set of methods and procedures - and a strategy for solving problems - for realizing opportunities related to people.” (Marker, Villachica, Stepich, Allen, & Stanton, 2014).

Connecting Improvement Thought Human Performance Improvement. The HPI model has remained unchanged since its introduction in 1997 (Marker et al, 2014). The earlier models have been linear in nature (Figure 2 and Figure 3), suggesting that practitioners complete earlier phases before later ones. In the updated model, the Spiral HPI framework (Figure 3) performance analysis informs on what is actually happening in a savvy practitioners’ heads as they loop iteratively between analysis, action and evaluation (Marker et al, 2014). For example there is a continuous spiral loop going from each part of the analysis back to evaluation as each step of the improvement process is conducted. The HPI model provides a more of a contextual perspective and integrates the steps of the Plan, Do, Study, Act (PDSA) model.

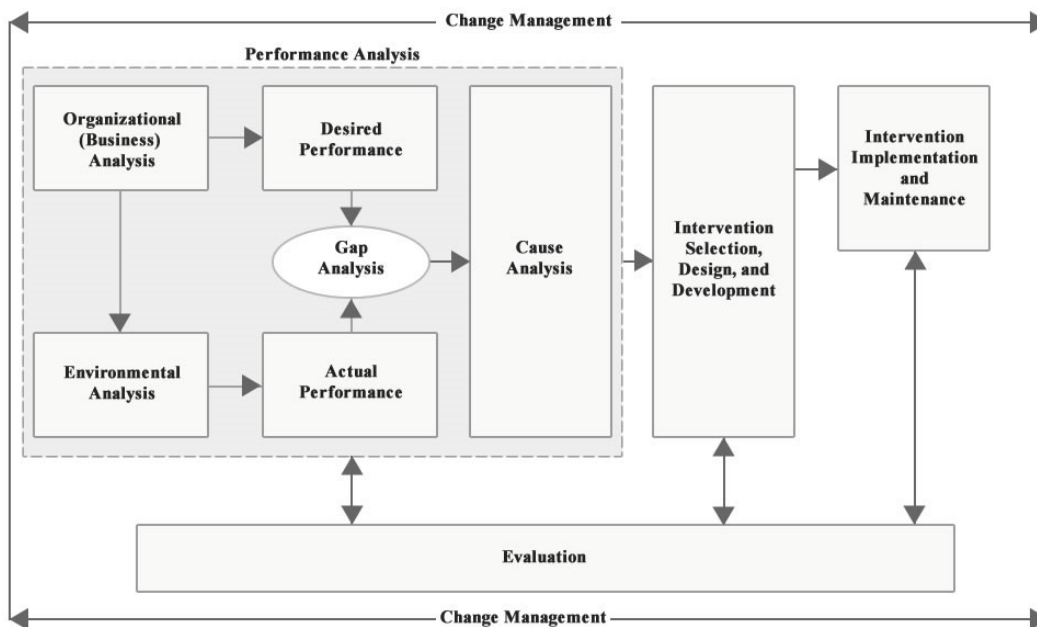


Figure 4.2. The Updated Human Improvement Model (Van Thiem, Mosley, & Dessinger, 2012)

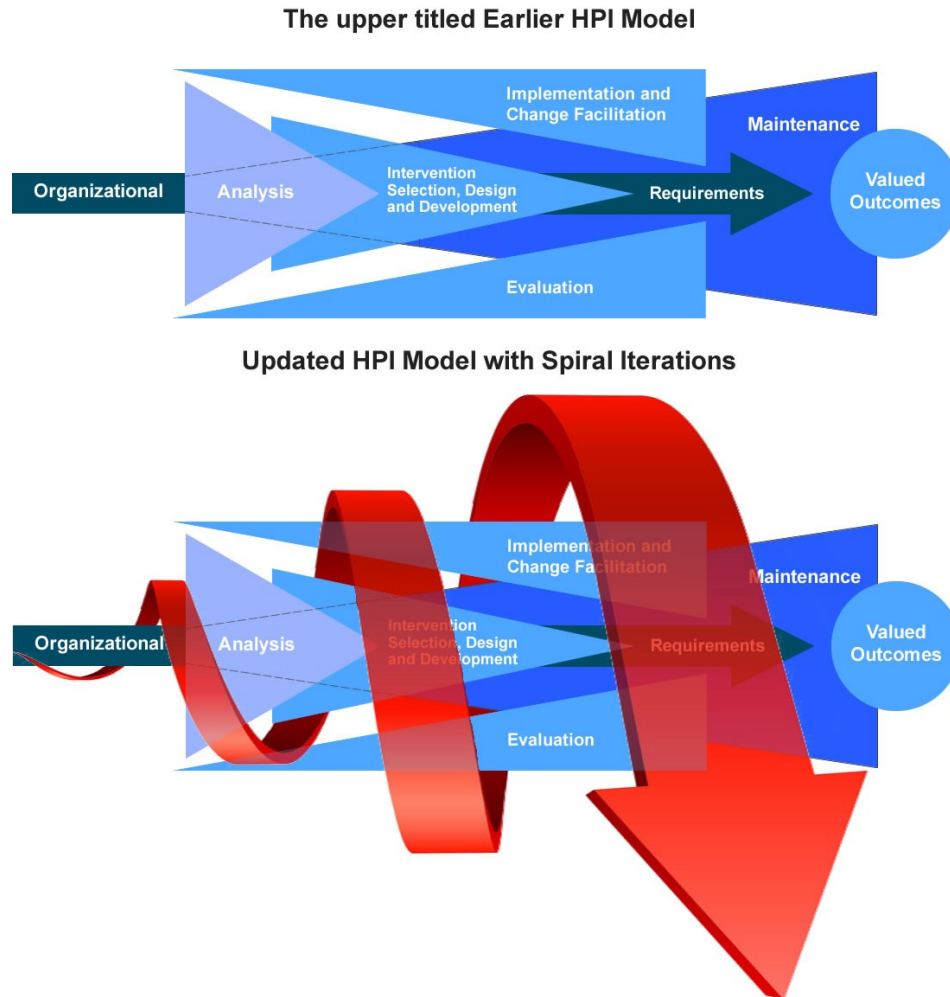


Figure 4.3. The Spiral Human Improvement Model (Van Thiem, Mosley, & Dessinger, 2012)

Solving the Problem of High Quality Teachers in a School

The HPI model starts with an analysis of performance that includes examining the organization, environment, and individual. The organization relates to the desired performance directly. The organizational and environmental analysis need to be considered when assessing the actual performance. The difference between the desired and actual performance creates the gap that needs to close. This gap helps to create the goals and aims of the improvement project. The model then examines methods to address the gap and assess if the methods worked and the interventions can be adopted or if it was not successful and they need to be adapted or discarded.

Organizational and Environmental Analysis

To provide a foundation and robust view of the research setting an organizational and environmental analysis was conducted. The research to examine high-quality teachers took place at an urban private secondary school founded in Charlotte, North Carolina in 1994. The school is accredited by the National Independent Private School Association (NIPSA) and AdvancED. The school is physically located in a 10,000 sf business park building in Charlotte. The school serves approximately 90 students from grades 8th to 12th. The school has 8 teachers and 4 administrators including the head of the school.

While private preparatory schools differ from public schools in many ways, they are similar in needing the right human resources in place for the school and students to be successful. To be successful private preparatory schools need quality teachers as teacher quality is singularly the largest factor in the success of the students (Ballosi and Hernandez, 2015). Quality teachers can make the difference between a student dropping out or being prepared for college (Barrett & Toma, 2013). Not only do high-quality teachers impact completion and preparation, data indicates highly effective teachers can raise student earnings by 10%-15% over the student's lifetime (Hanusek, 2011).

The Gap Analysis - Desired vs. Actual Performance

The gap analysis provides an understanding between the actual current performance and the desired performance. In this case the desired performance was to recruit, select, and retain high quality teachers that had successful student outcomes.

Actual Performance

The school experienced a long period of teacher longevity and steady growth up until recently. An internal promotion and two teachers relocating catalyzed the process of recruiting new teachers into the school in three of the eight teacher positions. Over the next nine months all three teachers hired were also replaced. Depending on the timeframe the turnover rate is in excess of 50%. The impact on student success could be very negative if teacher retention is not

dramatically improved. Administrators, parents, teachers and staff expressed concern related to the impact of teacher turnover on the school's long-term success.

Desired Performance

A high-quality teacher has the greatest impact on a student's short term and long-term success. Of all the factors influencing the success of schools and student success, teacher quality has been an area that matters most (Stronge & Xinxuan, 2017). The problem the school was facing was the need to understand what a high-quality teacher was and then attract and retain those teachers. The goal was to retain 90% of the high quality teachers that had students meeting the learning outcomes.

The Gap

The gaps identified were two-fold: first; a lack of shared knowledge on the definition of a high-quality teacher and second; a traditional recruiting and interviewing process that was based on impromptu questions and work environment scenarios. To better understand the gap, a cause analysis is needed to provide evidence of the steps in the current process and a better understanding why it may not deliver candidates that fit the school's objectives and resulted in the high turnover rates.

Cause Analysis

The concern over the poor teacher retention drove a review of the schools process for selecting and retaining quality teachers. The cause analysis used exit interviews, current school feedback, process mapping, and fishbone diagrams.

Exit interviews indicated a number of reasons for the turnover of new teachers but a common theme that was central included a lack of bonding with students and achieving positive learning outcomes. Current school feedback indicated that the morale of the remaining teachers stayed positive. Also during this time, feedback from teachers and parents indicate satisfaction with the school environment and leadership.

The next step in the cause analysis is to conduct a process map of the potential causes of the gap using the “Ishikawa Fishbone Diagram” or as it is often referred to as the “Cause and Effect Diagram.”(Ishikawa, K., 1968). The “Cause and Effect or Fishbone Diagram” was invented by Professor Kaoru Ishikawa of Tokyo University, a highly regarded Japanese expert in quality management. “It was first used in 1943 to assist engineers at Kawasaki Steel Works how viewing a complex set of factors may help to understand a problem.”(Dues, 2020). The purpose of the diagram is to identify the major causes of a problem and create a visual tool to help improvement teams.

A team composed of the owner of the school, head of the school, vice principal, and an experienced teacher met to create the Fishbone Diagram. Refer to Figure 4. The team identified three general categories with possible causes of low teacher retention: Recruiting Process; Quality Teacher; and Conditions and Compensation.

Conditions and Compensation: This was discussed and eliminated as none of the causes were identified as issues in the exit interviews of the teachers or from feedback of current teachers in relation to the school climate. Parents were pleased with the leadership and remaining teachers. Teachers enjoyed working in the environment as it allows them the freedom to practice their trade and help students.

Quality Teacher: Teachers not bonding with students seemed to be consistently identified during the exit interviews and discussions with parents and peers. As we reached out to the teachers there was some degree of confusion around what it means to be a high quality teacher. There was consensus that it was important to do research to establish a clear definition of a quality teacher considering both attributes and skills needed.

Recruiting Process: The current recruiting and candidate interview process is based on the collective experience of the head of school, the vice-principal and math instructor, and a senior instructor with many years of experience managing a public middle school. The interviews were conducted individually and tended to focus on experience and teaching degree and expertise rather than traits important for achieving student success. It was not clear that there was a clear connection between the selection process and retention of quality teachers. Additionally, a clear definition of a high quality teacher had yet to be developed and nor were alternative methods for interviewing identified.

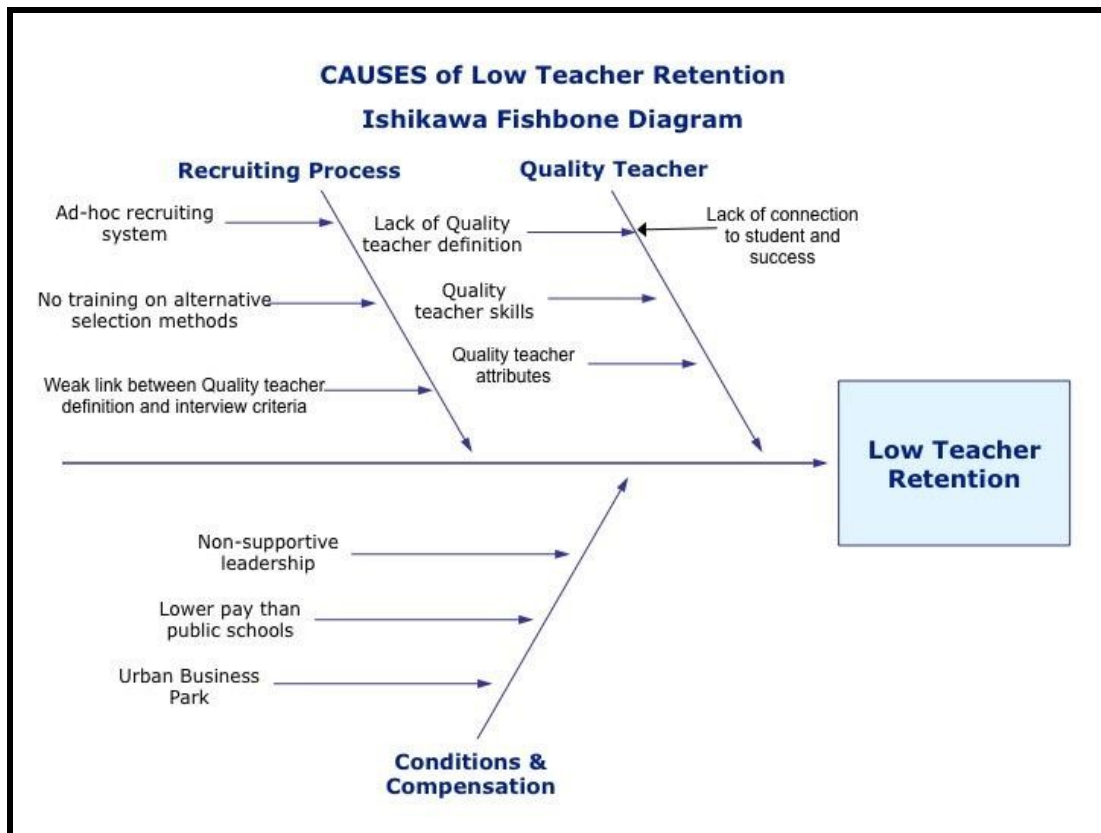


Figure 4.4. Ishikawa Fishbone Diagram (Juran's Quality Handbook, 2017)

Using Research to Help Close Gap

The gap analysis identified a need to establish a definition of a high quality teacher. This led to an integrated literature review and a Q-Sort study. The literature review identified 40 definitions of teacher quality (Torraco, 2005 & 2016) and the Q-Sort developed the perspectives of teachers, administrators, and parents. Table 1 shows the rank over of the highest rated statements in each distinct perspective.

Table 4.1. Factor Group Rank Ordered Highest Rated Statements From Q-Sort Analysis

Factor Groups	Rank Ordered Highest Rated Statements
Caring Motivators Administrators(n=4) Parents(n=5) Teacher(n=1)	Builds a respectful and trusting learning environment in the classroom Funny, kind, and authentic personality Patient and fair in interactions with students and colleagues Excellent communication skills with parents, students, and peers Creates a creative and trusting environment in the classroom Positive, confident, friendly and approachable
Learning Artisans Parents(n=4) Teachers(n=2)	Sets clear and high expectations for all Committed to making a difference for the students Loves to teach and shows content knowledge and subject mastery Committed to student success and their academic growth Communicates well at all levels in the class Loves students and develops close and respectful relationships
Friends First Administrators(n=1) Teachers(n=5)	Loves students and develops close and respectful relationships Builds a creative, respectful and trusting learning environment Kind and compassionate, helps others get things done Positive, confident, friendly and approachable Encourages diversity in all areas of learning and respects differences in student background

Caring Motivators: Teachers classified as Caring Motivators reflect 33% of the variance of participants. These teachers are leaders and seek to motivate the students but also have a particularly strong sense of caring about the students' success. This group consists of parents (n=5), administrators (n=4), and a teacher (n=1). This distinct view of high quality teachers integrates caring and motivating. Caring Motivators place greater emphasis on the traits that make a teacher a leader of students and are able to motivate them to learn and achieve academic success. They place less value on teaching methodology and the education of the teacher. Specifically they felt an advanced degree is not needed to be a high quality teacher.

Learning Artisans: Learning Artisans emphasize the skills and learning process knowledge that help students learn and succeed in the classroom. They comprise 2 teachers and 4 parents and reflect 7% of the variance explained by the three perspectives. No administrators loaded into this group. The group can be described as placing greater focus on the skills needed to deliver knowledge to students in a disciplined and yet still very caring manner.

Friends First: This group is called “Friends First” as they agree most with the importance of developing close relationships with the students as a prerequisite to successful learning. This group is made up of 5 teachers and 1 Administrator and reflects 5% of the variance of the study.

Intervention, Implementation and Maintenance

The plan for the intervention will be integrated using the PDSA cycle (Figure 4) merged within the next stage of the HPT model. This stage is intervention, implementation and maintenance. Implementation models include planning for collaboration, analyzing and designing interventions, identifying key users and establishing a mechanism for implementing the changes to build ownership (Marker et al, 2014). This stage creates opportunities for rapid prototyping and implementation of the Plan-Do-Study- Act cycles (PDSA) as shown in Juran’s Quality Control Handbook (Defoe, 2017) and Figure 3.

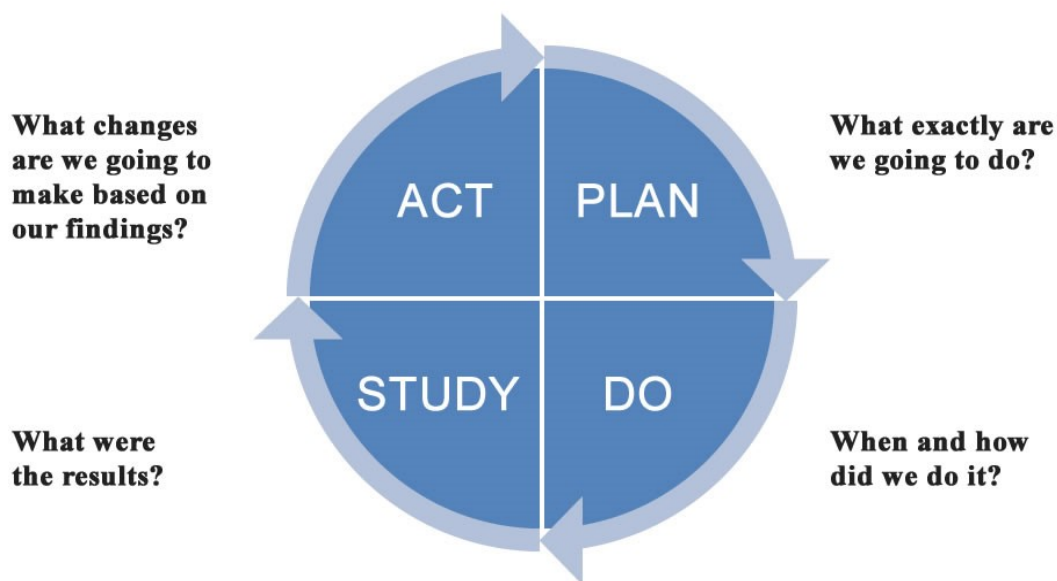


Figure 4.5. The PDSA Cycle

Table 4 shows the application of the PDSA cycle to the school. It begins with a **PLAN** that sets a goal that is meaningful and challenging for the team. The aim was to increase the retention of quality teachers from 50% to 90% within the next year. The management structure

for executing the plan is the “Engagement Team” composed of the Head of School, Vice Principal, and a seasoned teacher.

The **DO** section of the cycle is about creating an engagement team to translate the learning from research to practice in the school. The team starts a review of the literature research and the data from the Q-Sort analysis, making any adjustments as needed.

The team will review the current recruiting plan and assess alternative methods such as Behavior Based Interviewing. The Society for Human Resource Management defines Behavior Based Interviewing as a structured interview method considered by many to be the most effective type of interviewing technique for most organizations.(N.A., 2016).

The current interview process is one that relies on a three person team with many years of experience in education and consider themselves as good judges of character and teaching experience. However research shows that being an “expert interviewer” is more myth than reality. According to the book “Hire Better Teachers Now: Using the Science of Selection to Find the Best Teachers for Your School.” The authors note “ a review of 85 studies find that typical interviews that rely on interviewer ability correlate 0.2 with job performance...while structured interviews correlate 0.57 with job performance.”(Rose, English, & Gillespie-Finney, 2014).

The team will then do research on Behavior Based Interviewing (BBI) methods and build a knowledge base and working confidence in the use of this methodology and modify the current process for interviewing to behavior based interviewing with a rubric and standardized questions based on the definitions of high quality teachers and what is required to achieve student success.

The team will initiate communications on the coming changes through meetings with the staff, scheduled mini training sessions, and social media sharing with parents and students. The goal is to secure broad support for the effort to improve to recruit and retain high quality teachers.

The **STUDY** section of the PDSA cycle starts with a review of how the school has since used evidence-based data to incorporate high-quality teachers' qualities and the viewpoints of parents, teachers, and administrators into the hiring process using behavior based interviewing (Stronge & Hindman, 2006, Klassen & Kim, 2019). The Engagement Team will continue evaluating results, determining what steps or mini-experiments to undertake the next improvements in the selection process

While retention of faculty has increased, due to the current state of education during the COVID-19 pandemic, it is difficult to determine the impact on student outcomes. As there are other factors contributing to changes in student outcomes such as the impact of covid mask and safe distance separation rules and the greater use of online student participation. The demands of teaching in the uncertainty of a pandemic highlights the importance of the teacher's role in adapting teaching in a way that motivates students to learn despite the challenges of a pandemic.

The next cycle of hiring and retention rates of the new teachers will inform the next cycle of Plan-Do-Study-Act (PDSA). The **ACT** part of the PDSA CycleTiming will likely extend past the next school year. The analysis will determine if the definitions of a high quality teacher and the use of BBI deliver on the goal to move from 50% to 90% of recruiting and retention of high quality teachers (Table 3).

Table 4.2. HPI Model and PDSA Cycle For The School

PDSA Cycle	HPI Model	Specific Action Plans
PLAN	Environmental & Organizational Gap Analysis Cause Analysis Intervention Selection	1st Quarter 2022 Aim: Develop a collaborative plan to improve quality teacher retention from 50% to 90% over the next year. Measurements: Retention and percent of students that successfully complete.
DO	Intervention Implementation	2nd Quarter 2022 1. Create an Engagement Team composed of the Owner, Head of School, Vice Principal, and experienced teacher. 2. Review the results of the literature review and Q-Sort analysis and get consensus. 4. Train the team on BBM and modify the current interview and selection process to a behavior based interviewing methodology (BBI). 6. Create an interviewing and selection rubric connecting the agreed high quality teacher needs. 7. Train all teachers on what was learned from the research and the changes to be conducted.
STUDY	Evaluation	3rd Quarter 2022 1. Review effectiveness of the Improvement Plan. 2. Assess the BBM Interview methodology and gain feedback from users. 3. Make a series of changes and conduct mini-experiments.
ACT	Action and Revisit Gap Analysis	4th Quarter 2022 1. Evaluate results against the goal of improving retention to 90%. 2. Analyze available student outcome performance for improvements or required corrections. 3. Determine next steps or mini-experiments are needed.

Conclusions

The school faced a challenge of having to replace over half of their teachers in a nine-month period for various reasons such as relocation, retirement, and new job opportunities. While the research did not identify a singular definition of a high quality teacher, it did identify 250 definitions of a quality teacher. The 250 definitions were merged into 40 definitions of teacher quality and later used to engage teachers, parents, and administrators in a Q-Sort participatory research. The research outcomes with teachers, administrators, and parents yields a better understanding of their viewpoints of what is a high-quality teacher in this specific setting. The Q-Sort analysis sorted and prioritized three important groups of high quality teachers. Teachers classified as Caring Motivators reflect 33% of the variance of participants. These teachers are leaders and seek to motivate the students but also have a particularly strong sense of caring about the students' success. This group consists of 5 parents, 4 administrators, and a 1 teacher. This distinct view of high quality teachers integrates caring and motivating. Caring Motivators place greater emphasis on the traits that make a teacher a leader of students and are able to motivate them to learn and achieve academic success. They place less value on teaching methodology and the education of the teacher. Specifically they felt an advanced degree is not needed to be a high quality teacher. Learning Artisans emphasize the skills and learning process knowledge that help students learn and succeed in the classroom. They comprise 2 teachers and 4 parents and reflect 7% of the variance explained by the three perspectives. The group can be described as placing greater focus on the skills needed to deliver knowledge to students in a disciplined and yet still very caring manner. The Friends First group agree most with the importance of developing close relationships with the students as a prerequisite to successful learning. This group is made up of 5 teachers and 1 Administrator and reflects 5% of the variance of the study. The data from process mapping, the literature, and research called into question the current hiring process and how the school was operationalizing a high-quality teacher in this process. The Carnegie Foundation's "Six Core Principles of Improvement", the Spiral Human Improvement Model. (Marker, Villachica, Stepich, & Stanton, 2014), and the Human Performance Improvement (HPI) model (Wilmoth, Prigmore, & Bray, 2002) guided this project. Moving from research to practices is grounded in the Carnegie Foundation "The Six Core Principles of Improvement" (Bryk, Gomez, Grunow, & Lemahieu, 2015) and implemented with the Spiral Human Performance Improvement Model (Marker et al, 2014). The school has since used the evidence-based data to incorporate

high-quality teachers' qualities and the viewpoints of parents, teachers, and administrators into the hiring process using behavior based interviewing (Stronge & Hindman, 2006, Klassen & Kim, 2019). The school is in the process of implementing the Six Core Principles of improvement with the: **PIAN** stage starting and completing early first quarter, 2022; the **DO** stage starting and completing in second quarter, 2022; **Study** stage in third quarter, 2022; and the **ACT** stage completing fourth quarter, 2022.

Suggestions for Others Seeking High Quality Teachers

The application of the Human Performance Improvement (HPI) model and the principles of improvement science was useful to operationalize the use of evidence based practices to seek improvements. The process of identifying, prioritizing and selecting high quality teachers is critically important to the long term success of a school. Staff engagement and training were the two most essential steps in the processes identifying high quality teachers and moving from research to practice effectively. The use of the Q-Sort process became an engagement and learning tool for the team as they were introduced to the goals of the project and the importance of their role in defining and prioritizing the skills and attributes of a high quality teacher. The involvement of the teachers and staff, and parents in the Q-Sort data collection was the first step in the transition from research to practice.

Having a process and tools to diagnose performance issues, such as the HPI model, was critical in that it emphasizes the need to formally identify the gaps between current and desired states and give insight into how the process for selecting and recruiting high quality teachers could impact this gap. While this worked for this specific problem, the process could be used to solve other problems organizations face. The HPI model could be used in a variety of contexts to address problems the schools are facing. The introduction of the process improvement and the PDSA cycle presents a number of tools such as process mapping, Ishikawa's Fishbone Diagram, and other tools that engage staff members to be part of solving problems. In this example, staff, parents, and administrators were engaged to address the challenge of identifying and recruiting high quality teachers. Launching a small engagement team work on changing and testing the interviewing process was one of the first actions taken to translate the research to practice. It is

critical in this specific case with this specific problem that the interviewing process identified high quality teachers and then recruited and assessed on this in the interview process.

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CHAPTER 5

Epilogue

High-quality teacher recruitment, selection, and retention become a cornerstone of a high quality school. This dissertation addresses a matter of significant importance for one small private school that had to replace a large percent of teachers and had higher than desired churn rates. This dissertation uses a three-article approach to address this problem. The first step in addressing the problem is to have a clear understanding of what is a high quality teacher based on evidence from research. The next step, for this specific setting, is to explore how a variety of stakeholders from a small private preparatory school including administrators, parents, and teachers view high quality teachers. Finally, take the findings from article 1 and article 2 and apply them to create a method to continuously improve the selection and retention of high-quality teachers in a small private preparatory school. The initiation of this project has a significant impact on the policy and practices of the school. The high turnover rate of teachers and possible negative impact on the students and school was the first ripple of change toward finding better answers. Conducting the literature review and sharing these definitions with the teachers and parents was something entirely new to the school. The engagement of teachers and parents in the Q-Sort process was very well received and created a common language and bond between the school and parents. The Covid-19 pandemic and the ensuing stress and teacher burn-out caused an increase in teachers retiring or requesting part-time teaching. The effect is a need to accelerate the planned changes in policies and practices regarding recruiting and selection process and improvement science implementation. A number of important changes to policy and practice resulted at the school driven from the research and catalyzed by the Covid 19 pandemic. These include the development of a selection rubric for high quality teachers based on the criteria from the research, changing our selection process, and incorporating the definitions of a high quality teacher into the selection process, performance reviews and rewards, and marketing, and committing to incorporating improvement science into staff development.

Summary of the Findings

Article 1

Article 1 is An Integrative Review of Literature on definitions of teacher quality using the methods outlined by Torraco (2005,2016). An integrative literature review of 382 publications resulted in more than 250 definitions of teacher quality that was subsequently, merged into 40 descriptions of teacher quality and lists the characteristics, personal qualities, and skills of high quality teachers.

The research did not identify a singular definition of a high quality teacher. The 40 descriptions of high quality teachers; are grouped into 3 categories. First, “Traits” are the desirable personal attributes of quality teachers. Frequently referenced examples include “ a love of students and teaching, patient, positive, funny, and kind.” Second, “Skills” are the teachable professional and technical skills needed to effectively manage the classroom and deliver instruction collaboratively and effectively. The most frequently mentioned are “excellent preparation and organizational skills, the right experience and educational credentials, and strong classroom management and communication skills.” Finally, “Leader” is the combination of traits and skills that model positive and inspiring behaviors that catalyze student success. These characteristics include leading by example, modeling ethical behavior, and honesty.

Many factors contribute to school improvement and student achievement but the single most influential school-based factor is the teacher (Strong, 2018). Knowing the traits, skills, and characteristics is a first step private schools must take to recruit, select, and retain high quality teachers to ensure student success and ultimately the long term growth of the school.

Article 2

Article 2 is a Q Sort methodology that explores the perspectives of teachers, administrators, and parents on the definition of a high-quality teacher in a small private school. Twenty-seven participants comprising 10 teachers, 7 administrators, and 10 parents sorted the 40 statements from the literature review. The factor analysis identified 3 factor groups describing teacher quality including: Caring Motivators; Learning Artisans; and Friends First. The consensus of the groups places greater emphasis on teachers who are committed to making a difference for

the student with two groups giving high marks to the value of building strong relationships with students as a prerequisite for student learning and success.

Article 3

Article 3 describes how the school conducted an evidence-based systematic improvement project that sought to increase high-quality teachers' retention. To better understand the problem, the school mapped the hiring process. The data from process mapping, the literature, and research called into question the current hiring process and how the school was operating. The study describes the move from research to practice. The transition is grounded in the Carnegie Foundation "The Six Core Principles of Improvement" (Bryk, Gomez, Grunow, & Lemahieu, 2015) and implemented with the Spiral Human Performance Improvement Model (Marker et al, 2014). The school has since used the evidence-based data to incorporate high-quality teachers' qualities and the viewpoints of parents, teachers, and administrators into the hiring process using behavior-based interviewing (Stronge & Hindman, 2006, Klassen & Kim, 2019). While retention of faculty has increased, due to the current state of education during COVID-19, it is hard to determine the impact on student outcomes.

Discussion of Findings

To hire a high-quality teacher, it is important to first know what that terminology means. The first study provided insight into what past literature says about high-quality teachers. However, the problem this study was addressing was in the context of a small private preparatory school. It can be noted that the majority of the literature did not use smaller more contextual settings when describing high quality teachers. In turn, the findings from the integrative review of literature showed what this means on average and primarily used the context of large public education.

In that context, the findings from this study show that there is not one single definition of a high-quality teacher. The literature did provide traits, skills, and leadership attributes to better understand the concept. In this context love of students and teaching, patience, being kind and positive, and effective classroom management were presented. These characteristics would be appropriate across a variety of educational settings including large and small schools, public and private, as well as rural or urban. The same with the leadership traits that appeared such as

modeling positive behaviors and leading by example. It is important to note that one area that was common in much of the reviewed literature was that having the best human resources in positions was identified as the most single influential factor to improve the school and student success. Knowing the traits, skills, and characteristics is a first step private schools must take to recruit, select, and retain high quality teachers to ensure student success and ultimately the long term growth of the school.

The next study developed this concept of understanding a high quality teacher deeper in the context of a specific private preparatory school. The teachers, administrators, owners, and parents are all stakeholders and have perspectives of teacher quality. Based on the findings from the first study, their perspectives were examined to see how they viewed high quality teachers. Parents, teachers, and administrators had similar views but were not structured the same way in the viewpoints. At the local context, the unique views were caring motivators, learning artisans, and friends first were the perspectives that emerged. Relationships and empathy were keys in two of these three viewpoints. The perspective that identified teachers as friends first, had a majority of teachers in the perspective. However, learning artisans mainly focus on the teaching and learning process and these were teachers and parents. These viewpoints provide the school with a foundation to understand how to hire teachers that are viewed as high quality.

Impact on Policy and Practice

This research project was initiated in response to a clear need to improve the school's retention rate of high quality teachers. The initiation of this project has a significant impact on the policy and practices of the school. From the start of the project it was clear the first obstacle was a lack of a clear definition of a high quality teacher. Early on the research process was catalyzing adaptations in the way they looked at teaching and engagement approaches with teachers, parents, and staff. It's a small school and the founders knew "the right teachers and the kind of kids we could help." They always relied on their years of teaching experience to determine the right people for the school. The high turnover rate of teachers and possible negative impact on the students and school was the first ripple of change toward finding better answers.

Conducting the literature review and sharing these definitions with the teachers and parents was something entirely new to the school. The engagement of teachers and parents in the Q-Sort process was very well received and created a common language and bond between the

school and parents. Now instead of an almost unlimited list of unprioritized definitions of a high quality teacher, there is a common list of 40 traits and skills sorted into three groups: Caring Motivators; Learning Artisans; and Friends First. The use of Improvement Science and the High Performance Improvement models was a deeper dive into the root causes of processes and problems and was the first time improvement science was used to collaboratively work on solving deep-rooted issues. It shows a need for the school to provide more training in improvement science and to encourage the use of the improvement tools when appropriate.

Translating from research to practice used the methodologies to apply what was learned in the research and Q-Sort exercises to creating a plan and executing action-biased steps. The Intervention and Implementation part of the model is scheduled to begin in quarter 2, 2022. As is sometimes the case, opportunity and problems refuse to adhere to a schedule. Covid-19 has placed a significant strain on our students and teachers in the last year. Mental health challenges and the intricacies of managing CDC guidelines have resulted in a great deal of stress and teacher burnout. Three of our long-term teachers have announced their desire to retire or move to part-time teaching. The effect is a need to accelerate the planned changes in the recruiting and selection process.

A selection rubric is being developed based on the research. In addition, the Head of School is working to change the selection process, accelerate learning on Behavior-Based Interviewing and starting to apply these methodologies with the incoming group of candidates. Human resources performance reviews will be updated to require integration of the definitions of a high quality teacher into our student success model. The goal is to continue to focus on the characteristics that define our high quality teachers and to connect selection, performance, to student success.

The definitions of a high quality teacher from the research and the three groups of teachers identified will be featured in social media marketing and described in the TrinityPrep.com website. In addition, marketing will drive the message of student success in internal messaging, social media and communications with parents and counselors. Already the next Head of School will be named Head of Student Success and the Dean of Standards and Student Affairs will focus on Student Success and Standards. The title changes are more than a change in name. They reflect a renewed focus on student success and creating a collaborative improvement culture at the school combined with a commitment to improvement science.

Future Research

Future research based on this dissertation includes examining high quality teachers in other contexts, exploring these perspectives based on disciplines (such as academic and career and STEM instructors), and finally exploring if those that are hired using these practices stay longer and have students that are more successful. This study is narrowly focused on a very small private preparatory school. One can broaden the scope of the literature research to include administrators, teachers, teachers, and parents from larger public and or private schools to see if new definitions of a high quality teacher emerge.

Research in the context of different disciplines such as academic, career, and STEM instructors may offer different data and insight. Will the technical needs of STEM place greater value on degrees and technical knowledge and less on teacher leadership, classroom management, or positive student relations?

Conducting the research in other school settings such as highly selective schools or community colleges to study the emergence of any new definitions of high quality teachers or different groups than those identified in previous research. Will there be different definitions or simply reordering of priorities based on a greater focus on academic performance?

Finally consider a longitudinal study assessing the effectiveness of BBI on teacher selection and retention may show the impact on teacher retention. It would be interesting and useful to know if retention of high quality teachers correlates to long-term student success.

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APPENDICES

APPENDIX 1				
	Statement	Grp 1	Grp 2	Grp 3
1	Sets clear and high expectations for all	-2	5	2
2	Communicates well at all learning levels in the class	1	3	0
3	Masters teaching methods, subjects and how people learn in certain disciplines	-3	0	-1
4	Excellent preparation and organizational skills	0	1	-2
5	Has teaching experience to deliver results in student engagement and learning	-2	-2	1
6	Encourages diversity in all areas of learning and respects differences in student background	-1	1	3
7	Builds a respectful and trusting learning environment in the classroom	5	1	4
8	Teaches at the appropriate level stopping to check student understanding	1	0	0
9	Draws inferences from examples and models to reinforce student learning	-1	-1	-3
10	Has teaching degrees and certifications that translate into student learning outcomes	-4	-3	-4
11	Kind and compassionate helps others get things done	2	-2	3
12	Committed to making a difference for the student	2	4	2
13	Creative and innovative able to think outside the box	-1	2	0
14	Committed to student success and takes responsibility for their academic growth	2	3	1
15	Independent and assertive able to get things done without assistance	-2	-4	-1
16	Team player that strives to fit into the culture and collaborate	0	-3	-1
17	Reflective and superior listener, self-reflects to improve student results	0	2	1

APPENDIX 1				
	Statement	Grp 1	Grp 2	Grp 3
18	Committed to continuous learning and improving	-1	0	-2
19	Has a strong ego to survive the hard days and knows that teaching is a constant struggle to improve	-3	-4	-5
20	Strong facilitator, a teacher is a sharer of knowledge not a keeper of knowledge	-2	2	-3
21	Loves students and develops close and respectful relationships	1	3	5
22	Patient in fair in interactions with students and colleagues	4	-1	1
23	Good nature and uses humor to help students connect and learn	2	-1	1
24	Leads by example and demonstrates strong ethics and honesty	0	2	2
25	Funny, kind and authentic personality	4	-3	2
26	Loves to teach and shows content knowledge and subject mastery	1	4	1
27	Positive confident friendly and approachable	3	1	3
28	Tireless work ethic and tenacity to get things done	-1	-2	-1
29	Posses a growth mindset about their own capacity to learn	0	-1	-2
30	Creates a creative and trusting environment in the classroom	3	0	4
31	Provides clear explanations and expectations for class assignments	2	1	0
32	Sets clear outcome based objectives for the class and gives it the right amount of focus	-1	0	-2
33	Uses educational technology tools to deliver lessons to students in a fun and engaging manner	-2	-1	0
34	Uses outcome based teaching methods to maximize student engagement and learning	-4	-2	-4
35	Uses active teaching methods to maximize student learning.	-3	-2	-1

APPENDIX 1				
	Statement	Grp 1	Grp 2	Grp 3
36	Flexible and adapts teaching methods to improve student learning	1	2	2
37	Has advanced degrees in science and mathematics to improve student outcomes	-5	-5	-2
38	Provides real life example to give insight into knowledge acquired by the students	1	1	0
39	Excellent communication skills with parents, students, and co-workers	3	-1	-1
40	Begins class promptly and operates class in a well organized manner	0	0	-3

APPENDIX 2**North Carolina State University****INFORMED CONSENT FORM for RESEARCH**

Title of Study: Urban School Teachers, Administrators, and Selected Parents Viewpoints toward the Definition of Quality Teachers: A Q-Methodology Study. IRB Protocol - 16785

Principal Investigator: Harry Barto, hgbarto@ncsu.edu, 704-907-1957

Faculty Point of Contact: Dr. James Bartlett, jebartl3@ncsu.edu, 919-208-1697

What are some general things you should know about research studies?

This survey is being done for research purposes. In order to participate in this research, you must be 18 years of age or older. This survey is voluntary. You will not receive compensation for your participation in this research. Your survey responses are anonymous. There is minimal risk to your participation in this research and there are no direct benefits to you for participating in this research. By completing this survey, you are consenting to participate in research.

You are being asked to take part in a research study. Your participation in this study is voluntary. You have the right to choose not to participate and to stop participating at any time without penalty. The purpose of this research study is to gain a better understanding of how teachers, administrators, and parents define teacher quality. We will do this through the sorting of cards with statements about quality teachers. Participants will review a series of statements defining teacher quality and sort them into a forced distribution chart. The sorting process will be followed by clarifying discussions. Information from the sorts will be analyzed statistically to identify similarities of views by the participants.

You are not guaranteed any personal benefits from being in this study. You may want to participate in this research because your insight and participation will provide a better definition of teacher quality. You may not want to participate in this research if you are not comfortable determining and sorting teacher quality skills and traits.

In this consent form you will find specific details about the research in which you are being asked to participate. If you do not understand something in this form it is your right to ask the researcher for clarification or more information. A copy of this consent form will be provided to you. If at any time you have questions about your participation, do not hesitate to contact the researcher(s) named above or the NC State IRB office (contact information is noted below).

What is the purpose of this study?

The purpose of the study is to identify the perceptions held by teachers, administrators, and parents on the definitions of teacher quality. Teacher quality is ranked the highest factor in the success of students in preparatory schools and beyond. The information gathered will help the school identify and recruit quality teachers.

Am I eligible to be a participant in this study?

There will be approximately 13-15 participants in this study.

In order to be a participant in this study you must be over 18 years of age, a teacher, administrator, or parent this is a member of the parent-teacher student organization (PTSO) to participate in the study.

You cannot participate in this study if do not fit the eligibility criteria.

What will happen if you take part in the study?

If you agree to participate in this study, you will be asked to do all of the following:

- 1) Participants will receive a letter inviting them to a live card sort session.
- 2) You will be asked to sort the cards from +5 to -5 based on your view of high quality teacher characteristics. Directions
- 3) Participants will complete the sort individually to assure privacy.
- 4) Researcher will take pictures of the sort and collect final sorts for reference and data entry. No participants will be photographed or recorded.
- 5) Participants will complete a brief demographic form collecting information on years in the role, age, prior roles, and gender.

- 6) A unique ID will be provided to the sort and the demographic form to ensure they are matched.

Risks and benefits

There are minimal risks associated with participation in this research. The primary benefit to your participation in the research is an opportunity to engage in the identification of quality teacher skills and traits. You are not guaranteed any personal benefits from being in this study. You may want to participate in this research because your insight and participation will provide a better definition of teacher quality. You may not want to participate in this research if you are not comfortable determining and sorting teacher quality skills and traits.

Right to withdraw your participation

You can stop participating in this study at any time for any reason. In order to stop your participation, please advise Harry Barto. If you choose to withdraw your consent and stop participating it is perfectly acceptable.

Confidentiality

The information in the study records will be kept confidential to the full extent allowed by law. Data will be stored securely on an NC State managed computer. Unless you give explicit permission to the contrary, no reference will be made in oral or written reports which could link you to the study. Due to the small number of participants reidentification based on your responses is possible.

What if you have questions about this study?

If you have questions at any time about the study itself or the procedures implemented in this study, you may contact the researcher, Harry Barto, 704-907-1957, hgbarto@ncsu.edu

What if you have questions about your rights as a research participant?

If you feel you have not been treated according to the descriptions in this form, or your rights as a participant in research have been violated during the course of this project, you may contact the NC State IRB (institutional Review Board) Office via email at irb-director@ncsu.edu or via

phone at 1.919.515.8754. An IRB office helps participants if they have any issues regarding research activities.

You can also find out more information about research, why you would or would not want to be a research participant, questions to ask as a research participant, and more information about your rights by going to this website: <http://go.ncsu.edu/research-participant>

Consent To Participate

“I have read and understand the above information. I have received a copy of this form. I agree to participate in this study with the understanding that I may choose not to participate or to stop participating at any time without penalty or loss of benefits to which I am otherwise entitled.”

Participant's printed name _____

Participant's signature _____ **Date** _____

Investigator's signature _____ **Date** _____

APPENDIX 3

Participant Demographics

NCSU Q-Methodology Study

Date: _____

Participant Assigned Number: _____

Position Title: _____

Years in Position: _____

Prior Roles (last 10 years): _____

Gender: _____

Note: This form will be shredded upon completion of the study

APPENDIX 4

To: Q-Methodology Survey Participant

Date: TBD

Subject: Telephone Invitation For Teachers to Participate in a Q-Methodology Sort/Survey

I am calling to invite you to participate in a Q-Methodology survey. If you are interested in participating in this voluntary study I will be sending you a letter providing more details and confirming the day and time of the study.

The school is conducting research on how to define teacher quality. Research shows that teacher quality is the singular most important factor in the success of our students and ultimately can drive the success of our school over the long term. Your involvement in the school and important contributions to its success make you a great candidate for participating in the sort/survey.

This survey is being done for research purposes. In order to participate in this research, you must be 18 years of age or older. This study is voluntary. You will not receive compensation for your participation in this research. Your responses are anonymous. There is minimal risk to your participation in this research and there are no direct benefits to you for participating in this research. i.

Upon confirmation of your intent to participant, I will be sending out an introduction and overview of the study. Thanks very much

Harry Barto

Researcher

APPENDIX 4

Participant Instructions: Q Methodology Sort/Survey

Dear Teacher/Administrator/Parent,

Thank you for participating in this very important survey. As mentioned in my earlier, your participation in this survey is your consent. However at anytime you can decide to not participant and withdraw your consent.

You will be asked to sort the following statements of teacher quality (See Figure 1) into three categories on a forced bell-shaped curve. The statements will be written on 3x5 cards and individually numbered. The process is shown Q-Methodology - Conceptual Framework

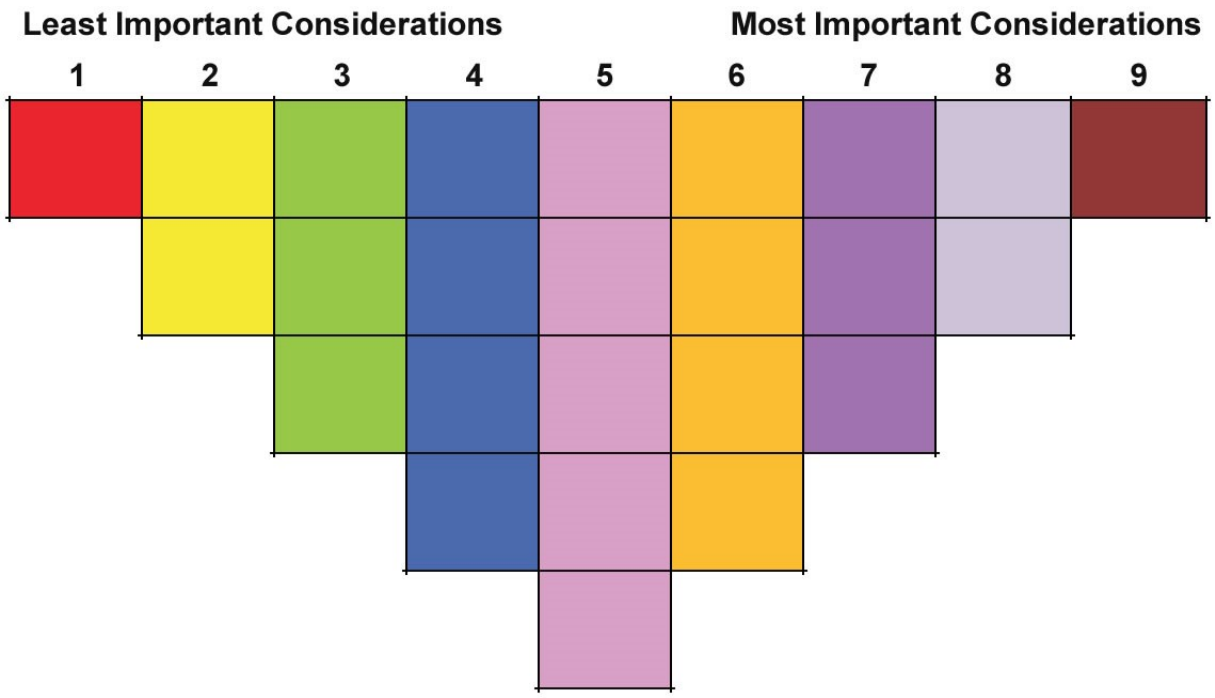
The three categories are:

- 1) Least Important - the least you agree the farther to the left of the curve
- 2) Neutral
- 1)3) Most Important - the most you agree the farther to the right of the curve

Once you have sorted the cards, I will ask you clarifying questions about how you located the cards. Once you have decided on a final sort, I will take a photograph of the cards for factorial analysis.

I will ask you to complete some basic demographic information to assure we match your comments with your card sort. At no time will the sort and comments be linked to you personally.

A Factorial Analysis will be conducted in the coming weeks and the combined results will be shared with the participants within the next 60 days.



APPENDIX 5

To: Q-Methodology Survey Participant

Date: TBD

Subject: Invitation For Teachers to Participate in a Q-Methodology Sort/Survey

Dear Teacher:

The school is conducting research on how to define teacher quality. Research shows that teacher quality is the singular most important factor in the success of our students and ultimately can drive the success of our school over the long term. Your involvement in the school and important contributions to its success make you a great candidate for participating in the sort/survey.

This survey is being done for research purposes. In order to participate in this research, you must be 18 years of age or older. This survey is voluntary. You will not receive compensation for your participation in this research. Your survey responses are anonymous. There is minimal risk to your participation in this research and there are no direct benefits to you for participating in this research. By completing this survey, you are consenting to participate in research.

Upon confirmation of your intent to participant, I will be sending out an introduction and overview of the study.

All the Best,

Harry Barto

Researcher

APPENDIX 6

To: Q-Methodology Survey Participant

Date: TBD

Subject: Invitation For Administrators to Participate in a Q-Methodology Sort/Survey

Dear School Administrator:

The school is conducting research on how to define teacher quality. Research shows that teacher quality is the singular most important factor in the success of our students and ultimately can drive the success of our school over the long term. Your involvement in the school and important contributions to its success make you a great candidate for participating in the sort/survey.

Please note that your decision to participate in this survey is strictly voluntary throughout out the entire process. You can decide to not participant before, during, or after the survey. Your participation in the survey is your consent but again you can decide to not participate at any time.

Upon confirmation of your intent to participant, I will be sending out an introduction and overview of the study.

All the Best,

Harry Barto

Researcher

APPENDIX 7

To: Q-Methodology Survey Participant

Date: TBD

Subject: Invitation For Parents to Participate in a Q-Methodology Sort/Survey

Dear Parent:

The school is conducting research on how to define teacher quality. Research shows that teacher quality is the singular most important factor in the success of our students and ultimately can drive the success of our school over the long term. Your involvement in the school and important contributions to its success make you a great candidate for participating in the sort/survey.

Please note that your decision to participate in this survey is strictly voluntary throughout out the entire process. You can decide to not participant before, during, or after the survey. Your participation in the survey is your consent but again you can decide to not participate at any time.

Upon confirmation of your intent to participant, I will be sending out an introduction and overview of the study.

All the Best,

Harry Barto

Researcher