Principal Decision Making Through Decentralized Teacher Selection

A Capstone Project

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EXECUTIVE SUMMARY

Effective teachers are crucial to student success (e.g. Kane, Rockoff, & Staiger, 2008; Metzler & Woessmann, 2012), thus it is crucial that principals hire well, yet teacher hiring practices are still under-researched (e.g. Engel, 2012; Mason & Schroeder, 2010; Rutledge et al., 2008). In this capstone project I researched teacher hiring among elementary school principals in Beetlewood County Public Schools (BCPS), a district that prides itself in site-based management. Principals in my study come from elementary schools that are unique in regards to community setting, demographics, and student programs. These principals have the autonomy to create a teacher selection process distinctive to their school. Through my research, I identify how BCPS elementary school principals design the process to hire a teacher with good fit to their school and how their interview processes compare with structured interview practices in industry. Other purposes of this study are to identify hiring practices so that BCPS principals learn from each other and to add to the meager research base on teacher hiring.

I reviewed teacher selection research across in the United States and Canada in addition to studies in industry regarding structured interview practices and fit. I learned about teacher hiring practices broadly in order to determine if the practices used in BCPS are unique and/or evidence based. Upon learning that teacher selection practices are under-researched, I broadened my scope to industrial and organizational psychology research on hiring. Hiring in industry has been studied for many years and there is evidence that sound hiring practices from industry are generalizable to K-12 education (Bäckström & Björklund, 2017; Dixon, Wang, Calvin, Dineen, & Tomlinson, 2002; Schmidt & Hunter, 1998).

My capstone research is through the lens of person-organization (PO) fit and cumulative prospect theory. A teacher who meets the needs of the students and school community would have a good PO fit, achieved when the teacher hired has the required knowledge, skills, and abilities for the job and their values and norms either match those of the organization or fulfill a hole. This "fit" leads to some positive outcomes in terms of longevity and effectiveness (Chatman, 1989). Principals make a series of decisions when hiring a teacher, which can be described through Tversky and Kahneman's (1992) cumulative prospect theory that describes decisions involving both risk and uncertainty.

I collected data in the spring of 2018 using a mixed methods approach. I used an electronic survey to collect quantitative data regarding logistics of the hiring process and tools used and six principals participated in semi-structured interviews and provided me with their interview documents from their most recent teacher hire.

As I began the study I hypothesized that hiring practices would be designed to uniquely meet each elementary school's need. My research indicated, however that BCPS principals in my study, who are empowered to design their own hiring method, usually follow the process typically used in the US and Canada (Rutledge et al., 2008). They gather information solely through screening, interviews, and reference checks in order to decide whom to hire. The variation in their processes mostly occurred in the questions that they asked vis-à-vis the quality and depth, as well as focus. They incorporate some components of a structured interview, but completely fulfill the requirements of only two, namely including others on the interview team and asking all candidates the same questions. These principals partially implement job analysis, using better types of questions, and training interviewers, and rarely incorporate anchored rating scales or rating the answer to each question. I was unable to determine if the BCPS principals in my study were interviewing for good PO fit and this is an area for further study.

I propose the following recommendations based on my research findings.

- 1. Train principals to use structured interviews.
- 2. Provide a training checklist for principals to use to prepare their interview teams for the teacher selection process.
- Encourage principals from like schools to do common job analyses of teacher positions.
- 4. Ask principals to share interview questions with each other.
- 5. Require principals to report their process to human resources department each time they hire a teacher.

Keywords: teacher selection, teacher hiring process, structured interview, fit

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APPROVAL OF THE CAPSTONE PROJECT

This capstone project, "Principal Decision Making Through Decentralized Teacher

Selection", has been approved by the Graduate Faculty of the Curry School of Education

in partial fulfillment of the requirements for the degree of Doctor of Education.

Capstone Chair (David Eddy-Spicer, Ed.D.)

Capstone Committee Member (Pamela Tucker, Ed.D.)

Capstone Committee Member (Coby V. Meyers, Ph.D.)

November 12, 2018 Date of Defense

DEDICATION

I dedicate this to my family and friends who consistently inspire and support me.

I am grateful that you encourage me to learn and get better.

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Dr. David Eddy-Spicer has been a supportive capstone chair throughout this process. He encouraged me to do the improbable and worked with me to attain success. I am also grateful to my committee members Dr. Pam Tucker and Dr. Coby Meyers who provided me with useful feedback along the way. Dr. Tucker taught me much of what I know about human resources and helped me become a school administrator. She has continuously encouraged me to improve my practice in order to get better at helping students succeed. I am so grateful that I have been able to learn from her.

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SECTION ONE: INTRODUCTION

The Ongoing Challenge

Principals have many important responsibilities, yet perhaps none of them is as important as deciding who will work with students on a daily basis. During the school year, students often spend more time with teachers than with other adults in their lives; thus, principals must fulfill this responsibility with the utmost care. Superintendents and school boards have the final say on whom is hired, but they usually delegate the responsibility of teacher selection to principals (DeArmond, Gross, & Goldhaber, 2010; Engel & Finch, 2015; Liu & Johnson, 2006). Principals do not have complete control in the hiring process because teacher applicants have preferences that affect a principal's ability to hire the best candidates (Loeb, Kalogrides, & Beteille, 2012). Even so, a principal's hiring process will determine if they choose the best of the applicants available to them.

It is clear that effective teachers have a positive impact on students (Kane, Rockoff, & Staiger, 2008; Metzler & Woessmann, 2012; Wayne & Youngs, 2003). Principals influence the quality of a teacher placed with students either through hiring or through providing training and support to help their teachers improve. The most efficient way to ensure teacher quality is to hire effectively; however teacher hiring research is not yet comprehensive enough to guide principals' hiring practices in general, let alone to

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provide guidance to meet needs in unique situations (e.g. (Delli & Vera, 2003; Engel & Finch, 2015; Mason & Schroeder, 2010; Papay & Kraft, 2016; Rutledge, Harris, Thompson, & Ingle, 2008). This is an area ripe for further investigation. My study was conducted in a school district where autonomous principals design their own hiring process and decide whom to hire with very little central guidance or direction. In this section I will describe this school district along with the associated problem of practice. Next I explain the purpose of the study and the research questions that guided the methods I used to research. After that, I acknowledge the limitations and delimitations of the study as well as my assumptions. Finally, I provide an overview of the study and a summary of the section.

Local Context

Beetlewood County¹ is a large county in Virginia and has a mixture of rural, suburban, and urban settings for its schools. There are 24 principals in this district and each runs a unique school in regards to size, demographics, and culture. The diversity among schools is a source of strength and pride in the county while simultaneously posing a challenge in regards to staffing as these principals seek to meet their school's distinctive needs. Because of the uniqueness of each school, it is thought that principals cannot simply duplicate each other's hiring process. Each must look for the qualities and skills that would best meet the needs of their community and school organization. Decisions in the county are largely site-based and principals have a great deal of

¹ All names of individuals, organizations, and places used in this study are pseudonyms.

independence without much centralized training when it comes to hiring teachers. Through this practice, the district is implicitly asserting that Beetlewood County principals have enough training and experience to design a hiring process and select the best candidates without centralized control and support only as requested. Perhaps it is also implied that centralized control might hinder a principal's ability to meet the unique needs of their community.

Beetlewood County Public Schools (BCPS) has 15 elementary schools, and they will be the focus of this study. Four of the elementary schools in the district have been designated "urban-ring" schools because of the urban nature of their surrounding community. There are six small, rural elementary schools and five large suburban schools. Within each geographic designation there are some schools that follow a more traditional model, while others incorporate practices such as multi-age classes, or world language immersion. Beetlewood County takes pride in maintaining school-based leadership practices. Each of the principals is encouraged to develop a unique culture and focus to best meet the needs of her or his school's unique practices and surrounding community.

Each elementary school principal, in conjunction with the school staff, determines their school's vision and direction within the overarching vision and mission of the county. The BCPS vision and mission statements are student centered and include core values of excellence, young people, community, and respect. The Beetlewood County overall goal is for students to graduate having mastered life-long learning skills to

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succeed in the 21st century.² Principals have substantial latitude to make many decisions for their school, but each choice must be within the bounds of the BCPS vision and mission statements to work towards achieving the overarching county goal. Principals ensure that each school follows the state-mandated curriculum, yet schools design their own pacing and teaching strategies.

Each principal has a great deal of autonomy in regards to hiring practices and decides their own process. The Beetlewood County policy regarding recruitment and personnel selection has only two short paragraphs³. The first paragraph emphasizes open competition, following regulations, hiring in a balanced way to provide opportunities for entry-level candidates, and the importance of selecting the best possible candidate. The second addresses hiring of those convicted of breaking the law. The county department of human resources does provide support and training as requested, but there are no county hiring manuals or written guidelines describing the process or defining "best possible teacher." Just as each school determines pacing and unique vision, they largely determine the hiring process. Each principal decides what will work best within a loosely coupled system.

The county hosts a centralized application system, conducts screening interviews, requires a writing sample as candidates respond to two questions, and ensures that candidates have appropriate credentials prior to sending contracts. Additionally, BCPS recommends that principals interview candidates who receive a four or five on their

² Beetlewood County Public Schools. (n.d.)

³ Beetlewood County Public Schools. (2015).

screening interview and check with at least one reference prior to making a recommendation to hire. The rest of the process, however, is under the principal's discretion. Beetlewood County does not have prescribed hiring practices, nor does it require principals to participate in centralized training. Novice principals are assigned a mentor who meets with them and provides support and these mentors may provide procedures and direction for hiring teachers, but it is not systematic. Given the diverse nature of the school division, however, it is likely that the novice would need to modify the practices in order to match the unique needs of their school and community.

Principal autonomy and school diversity combine to make it more likely that Beetlewood County elementary principals would be inclined to use a wide array of hiring practices and decision making processes to determine which teacher best fits the needs of their students and school. At the time of this study however, their hiring practices and decision making processes were unknown. The problem of practice regarding how autonomous principals design their hiring process and decide whom to hire is described below.

Problem of Practice

Hiring teachers is an important element of human capital management and should be done with care (Odden, 2011) and without discrimination as required by law (U.S. Equal Employment Opportunity Commission, n.d.). Increasingly, principals are tasked with hiring (Engel & Cannata, 2015). The hiring process takes time and energy, and often coincides with end-of-year activities that also place demands on a principal's time. Elementary principals in BCPS independently sort through an average of 200 applications for each teaching position. After narrowing the applicants to a more manageable number, principals often hold interviews, check references, and then hire a teacher (Delli & Vera, 2003). All too often American principals have done this quickly, spending little time to decide whom they should recommend to hire (Rutledge, Harris, Thompson, & Ingle, 2008).

Beetlewood County elementary principals must choose candidates with excellent teaching and relationship skills in order to help students succeed while also considering who will work towards the BCPS vision, mission, and goal. Further, principals must determine if the candidates believe in their unique school values and will work well within the school team. Additionally, principals decide how much to share about their school, the position, and the community with the candidate. This is a two-way match and the candidate's desires are integral to the decision. All of these variables cause the hiring process to be complex and challenging.

Despite the complexity and difficulty of this task, BCPS principals receive minimal ongoing hiring guidance or support. It is supposed that principals design and implement their own selection processes in conformance with laws and school board policy, but do not have to report their hiring practices or describe their decision making process to the district. The hiring practices and processes of these principals are largely unknown; therefore it is unclear if they do follow school board policy and the law. This is a serious concern as it is important that principals hire fairly for the most qualified candidate. Doing all of this during a busy and challenging time of year without much support or direction from the district would be daunting. As each individual principal has authority to determine their own process and design it for the unique needs of their school, the probability of variation in the teacher hiring decision making process is high among the elementary principals in BCPS. The principal's investment would yield positive fruit if they find a teacher who matches the needs of their students, school, and community. There is some evidence that sound hiring practices from industry might be generalizable and help provide guidance towards hiring for good fit while reducing bias (Bäckström & Björklund, 2017; Dixon, Wang, Calvin, Dineen, & Tomlinson, 2002; Schmidt & Hunter, 1998). If education is comparable to other professions, well-matched teachers are more likely to be effective and committed than if they are poorly matched (Bowen, Ledford, & Nathan, 1991; Chatman, 1989).

I studied how BCPS elementary school principals decide which teacher candidate they will hire and compare their processes with each other as well as with processes proven across a variety of situations in industry to be reliable and valid. This purpose of the study will be described next.

Purpose of Study

The purpose of this study is to understand how school-based leaders determine who will best fit an open teacher position. School-based leadership practices can be very effective at meeting the unique needs of individual school communities; however, teacher hiring practices in BCPS are almost entirely unknown. It is assumed that BCPS principals aim to hire the best teachers for each open position, yet it is not clear that each of them has the knowledge and skills to do so effectively without more support and direction from the county.

This is a significant leadership issue because staffing schools is an ongoing responsibility of principals. I hope to positively influence hiring practices in BCPS as well as improve my own ability to hire fairly and effectively. As will be seen in the literature review, teacher selection is a nascent area of study in K-12 education with relatively few definitive answers. In this era of increasing principal autonomy, the study adds to my knowledge base and that of BCPS elementary principals, but to that of a larger audience as well.

Research Questions

I am very interested to know the thought processes and purposefulness of principals as they decide whom to place in classrooms with students. To explore this I will investigate the following research questions:

Central Research Question: How do principals make decisions about whom to hire?

Research Question 1: How do principals design the process to hire a teacher?

- a. What is the process that elementary principals use to decide upon whom to hire?
- b. How do they decide upon a process to use?
- c. In what ways do principals expect their process to identify knowledge, skills, abilities, attributes, and instructional goals of the candidates?

Research Question 2: How does the interview process used by elementary school principals compare with structured interview practices in industry?

Methodology

Conceptual framework. The conceptual framework of this study will be through the lens of person-organization (PO) fit as well as through cumulative prospect theory, a descriptive decision making theory. PO fit is one element of person-environment (PE) fit and is useful to the study because it describes how well an employee fits their organization (in this case a school). A good PO fit is a predictor of job satisfaction, commitment to the organization, and intent to stay in the job (Chatman, 1989; Kristof-Brown, Zimmerman, & Johnson, 2005). I am interested in determining how principals design a hiring process and select teachers whom they think will best meet the needs of their students and community. A teacher who meets the needs of the students and school community would have a good PO fit. Cumulative prospect theory helps to describe elementary principals' decision making process. There is uncertainty in hiring, even when the process is thorough and the most proven hiring tools are used effectively, (Highhouse, 2008) as well as risk. Therefore, I am using Tversky and Kahneman's (1992) classic decision making theory, cumulative prospect theory, because their descriptive model addresses decisions that involve both risk and uncertainty.

Good PO fit, or fit of the teacher with a specific school, may be especially important for BCPS because of the distinctive nature of each elementary school. Good PO fit is achieved when values and norms of the person hired match those of the organization, or fulfill a hole in the organization, and this "fit" leads to some positive outcomes in terms of longevity and effectiveness (Chatman, 1989). A framework of PO fit lends itself to a school division as diverse as Beetlewood County. However, there is scant literature on PO fit or hiring practices in education so I draw from industrial and organizational psychology fit research to inform my work. Harris and Rutledge (2010) provide support to this generalization in their synthesized research comparing teacher effectiveness with effectiveness studies in other careers and concluded that teaching is similar enough to other complex professions that lessons can be learned from hiring research outside teacher-focused studies.

Decision-making theorists, Tversky and Kahneman (1992), describe two phases for every decision in cumulative prospect theory. First, framing (process design) and editing (initial candidate evaluation), where the principal's hiring design would elicit a representation of the facts about each candidate and the principal would organize this data in order to eventually synthesize it. The second phase is the valuation phase where the principal would assess the value of each of the options (teacher candidates) available and make their choice. As principals use the resources made available through the results of this study they will be more aware of options to design hiring practices and better able to make good decisions on fit, thus be more likely to hire effective teachers.

Methods. I used mixed methods to collect data on how Beetlewood County elementary school principals design their hiring process and decide which teacher to hire. I sent a survey to all BCPS elementary school principals to collect quantitative data regarding their practices. I interviewed six of these principals in order to collect qualitative data and coded it according to structured interview elements (Levashina, Hartwell, Morgeson, & Campion, 2014) and reoccurring themes (see Table 1). I also analyzed each of these six principal's interview documents (questions and rating scales) for reoccurring themes and in comparison with types of structured interview questions (Campion, Palmer, and Campion, 1997). I have chosen to focus on elementary school principals in BCPS because most of them have been leading their school for at least five years, whereas the secondary principals all have fewer than five years at their respective schools.

Quantitative survey. I surveyed BCPS elementary principals about their decision making process for teacher selection. Each principal received the same questions regardless of school size or level and the results were quantitatively analyzed. Questions were designed to discern information such as the type of artifacts used, types of interview questions, how many candidates are interviewed, who is involved in the decision making process and why.

Qualitative interviews. Concurrently I contacted six elementary school principals for qualitative interviews. Nine principals were chosen with a Beetlewood

Table 1	
Resear	ch Methods

Method antitative	<u>n</u>	Mode of analysis	addressed
antitative	0		
	8	Descriptive statistics Comparative analysis among schools & to elements of structured interviews	1b, 1c, 2
antitative & alitative	6	Comparative analysis among schools & to elements of structured interviews	1c, 2
alitative	6	Thematic coding Comparative analysis among schools & to seven elements of structured interviews	1a, 1b, 1c, 2
	alitative	alitative	to elements of structured interviewsantitative &6alitative6alitative6Thematic coding Comparative analysis among schools & to seven elements of structured

County human resource representative to represent the diversity of schools in the district

and who had been at their school at least three years. I contacted seven principals from among that group and one declined to participate. Interviews were used to explore the principal decision making process in more depth. I piloted questions with three veteran assistant principals whom share in hiring responsibilities at their school as well as BCPS human resource employees responsible for screening. The methods are similar to those used by Engel (2013), Mason and Schroeder (2010), Pogodzinski (2016), and Rutledge et al. (2008).

Document analysis. The six principals interviewed provided me with a copy of the interview questions and any accompanying rubric or evaluation tool used for their last teacher hire. Each principal's interview tool was examined to determine what types of questions they use and the overall structure of their interview process.

I compared the data to determine which teacher selection practices are common in the county as well as those that vary. I also compared the hiring processes used by BCPS principals with what is known from teacher selection research, in addition to industrial and organizational psychology literature in regards to evidence-based practices in structured interviews. I will present all findings to the BCPS leadership team which includes principals and assistant principals responsible for hiring teachers.

Limitations, Delimitations, and Assumptions

While the study followed accepted methods of previous researchers, there are some limitations. This was a self-report study, which may mean that information is skewed to cast principals in a more favorable light. I did not interview the teachers who have been hired in order to have a second source to verify practices, nor did I interview others on the hiring team. It is assumed that principals will self-report honestly. While this is a potential limitation, it is a research practice often used in the field. In addition to the limitations of a self-report study, only a few principals' practices were studied and those interviewed were selected with input from BCPS. Thus, this information may not fully represent elementary principal hiring practices in Beetlewood County.

The sample sizes in my study are small which results in more limitations. I am not able to describe each principal and individual school in order to maintain anonymity of the participating principals. Instead I describe the schools and principals generally and make attributions without providing context that would add richness to the findings.

Along with those limitations I recognize the following delimitations. I am only studying principal decision making among elementary schools in one school district using K-12 research from the United States and Canada. Also, BCPS elementary school principals make several major decisions prior to offering the job to one of the teacher applicants. First, they have to determine what knowledge, skills, and abilities (KSAs) they will look for in the applicants. Second, they need to pare the applicant numbers down through a screening process to the few that they will meet with face to face. Third, principals need to determine what process they will use to identify the top candidate. Finally, they decide whom to hire. I focused only on what happens during the third and fourth decisions; after candidates are screened and selected for the final stages.

I am assuming that I can impact BCPS hiring practices by studying this process and sharing the findings with principals and the human resources support staff. This is an assumption that awareness leads to positive change. I am also hypothesizing that hiring practices are designed to uniquely meet each elementary school's need.

Study Overview

This capstone project will explore the process principals use to make decisions when hiring teachers to place the best available people to work with students to fit their school's unique needs. I will survey school principals and will interview six elementary principals and review their hiring documents to determine their practices and decision making process to hire teachers. I will evaluate the resulting evidence against extant research on PO fit and interview structure and will make recommendations for how leaders might design their hiring processes to match evidence-based research.

In the next section I will review the literature on teacher hiring practices as well as that on fit in K-12 education and industry. I will also review research from industrial and organizational psychology regarding proven practices with structured interviews and the final section describes the research methods used for this study.

SECTION TWO: REVIEW OF LITERATURE

Hiring effective teachers is an ongoing problem of practice for principals. Principals have many decisions to make on a daily basis, but deciding which teacher to hire may be one of the most important because of the impact that teachers have on students (Goe, 2007; Harris & Sass, 2011; Kane, Rockoff, & Staiger, 2008; Metzler & Woessmann, 2012; Wayne & Youngs, 2003). In addition to the impact on school children, hiring good teachers is costly and time consuming (Hanák, Sirota, & Juanchich, 2013) and should be done well. Hiring practices in industry have been studied for decades (Buckley, Norris, & Wiese, 2000; Dixon, Wang, Calvin, Dineen, & Tomlinson, 2002; Highhouse, 2008; Nowicki & Rosse, 2002; Schmidt & Hunter, 1998) , but despite the importance of this practice, teacher hiring practices are still under-researched (Delli & Vera, 2003; Engel, 2012; Engel & Finch, 2015; Mason & Schroeder, 2010; Papay & Kraft, 2016; Rutledge et al., 2008).

In this section I will review the literature regarding K-12 teacher hiring practices in the United States and Canada in addition to employee fit literature from K-12 education in these two countries. I also review industrial and organizational psychology research on effective hiring practices, with a focus on interviewing. I then place current teacher hiring practices in the context of effective hiring practices and employee fit research, and examine how this combination informs an understanding of a principal's decision making process when hiring teachers. Finally, I describe areas where further research is needed.

Method for Locating and Selecting Research

In order to gather appropriate literature, I based my approach on Hallinger's (2014) five questions related to conducting a systematic literature review found in Table 2. Initially, I performed key word searches in Google scholar and the following databases: ERIC (EBSCO), Academic Search Complete, Education Index Retrospective: 1929-1983, Education Full Text, Education Research Complete, and Psychology and Behavioral Sciences Collection. I also conferred with an expert on teacher hiring and fit at the Curry School of Education at the University of Virginia who directed me to other articles. Next, I searched through the articles found through the initial methods and located further relevant research articles. I narrowed the overall results of those on teacher selection or fit to research published in peer-reviewed journals that was conducted in public schools in the United States and Canada. Articles I reviewed represent research in K-12 public schools from at least 36 states as well as parts of Canada. The industrial and organizational psychology research about most effective hiring practices is also from peer reviewed journals.

A Review of the Literature on Teacher Selection

It is widely agreed that effective teachers are essential to student achievement. Teacher selection has become more decentralized in school districts across the United States over time and the school principal has the primary responsibility for the screening and selection of teachers (DeArmond et al., 2010; Engel, 2013; Engel & Finch, 2015;

Questions from Hallinger (2014, p. 543)	How the question was addressed
What are the central topics of interest, guiding questions, and goals?	What are the findings in the field regarding how principals decide whom to hire to teach? How have what is known about effective hiring practices or fit been used in this decision-making process? This is an exploratory review as teacher selection is under-researched and still poorly understood.
What conceptual perspective guides the review's selection, evaluation, and interpretation of the studies?	This review analyzes the principal's decision making process through their teacher selection design to match the needs of the school, the job, and the students and staff; through the lens of fit.
What are the sources and types of data employed in the review?	I review empirical studies specific to teacher fit and teacher hiring in the United States, in addition to other research about hiring practices applicable to the principal's decision-making process.
What is the nature of the data evaluation and analysis employed in the review?	Inclusion criteria are the following: peer reviewed studies specific to teacher hiring, effective hiring practices, and person- environment fit.
What are the major results of the review?	It is clear that further research is needed. Very little information is available regarding any form of teacher-environment fit. There is also scant evidence that principals purposefully consider fit or effective hiring practices in their decision making process because this question is under-researched.

Table 2Guiding Questions for Scientific Reviews of Research

Harris, Rutledge, Ingle, & Thompson, 2010; Ingle, Rutledge, & Bishop, 2011; Liu & Johnson, 2006; Mason & Schroeder, 2010; Papay & Kraft, 2016; Pogodzinski, 2016; Whitworth, Jones, Deering, & Hardy, 2016). Principals are often responsible to hire teachers, yet only recently have researchers focused on how they make this important

decision (Delli & Vera, 2003; Engel, 2012; Engel & Finch, 2015; Mason & Schroeder, 2010; Papay & Kraft, 2016; Rutledge et al., 2008). I review that research in this section.

Research on the selection process regarding school leaders' decisions is typically done using retrospective interviews and surveys with principals. This self-reported data could potentially involve bias as principals may answer with espoused practices in lieu of their actual hiring practices in order to present themselves in the best light, or could potentially introduce error due to inaccurate memories. However, these methods are more efficient and less labor intensive than other means, such as real-time observational studies, and are widely used. While some of the survey data is quantitative in nature most of the studies collected and analyzed data using qualitative methods.

Although studies suggest that principals have the main responsibility of selecting teachers for their schools, they often share this responsibility with others. Sometimes policies mandate teacher participation in the process such as in the DeArmond et al. (2010) study where staff elected at least one teacher representative to serve with the principal, and principals had to put at least one parent on each hiring team. However, principals often chose to collaborate in their efforts to select teachers (Engel & Finch, 2015; Pogodzinski, 2016). High school principals were more likely to collaborate with others in the hiring process than elementary school principals, although principals at both levels generally make the final decision themselves (Engel & Finch, 2015). Including parents or students on interview teams is not a common practice (e.g. DeArmand, Gross, Goldhaber, 2010; Delli & Vera, 2003), and one study found that teachers were involved in the hiring process less than half of the time (Liu & Johnson, 2010). Regardless of

whether teachers or others are included, research focuses on the hiring and selection process from the point of view of the principal and/or other school leaders, and not others on the hiring team (DeArmond et al., 2010; Engel & Finch, 2015; Ingle et al., 2011; Mason & Schroeder, 2010; Rutledge et al., 2008; Supon & Ryland, 2010), or the teacher applicants themselves (Cannata, 2010; Liu & Johnson, 2006).

Decision making phases. Principals must make decisions about whom to hire so it is important to understand the decision making process. Decision making theorists, Tversky and Kahneman (1992), describe two phases in every decision. First, framing and editing, where the decision maker (e.g., elementary school principal in this study) builds their representation of the facts as he or she understands them as a result of the hiring process design. The second phase is the valuation phase. In relation to this study, valuation occurs following framing and editing at the point at which the principal combines and synthesizes the data in some way, and assesses the value of each of the choices (teacher candidates) available. After these two phases they make their choice.

The teacher selection research identifies several steps within the framing phase; through a growing number of studies, however there is less research on the valuation phase of teacher selection. The literature in each of these areas is discussed below.

The framing and editing phase. Framing, in regards to teacher hiring, occurs when principals decide what they are looking for in a teacher and design a process to find a candidate to meet identified needs. Editing is the initial screening of candidates as well as evaluation of candidates during an interview process. This phase in teacher selection consists of process design as well as screening and candidate performance during hiring

activities. Infrequently researchers report that applicants demonstrated their teaching through a model lesson, or in some other way; however, most often principals gathered information solely through initial screening exercises, interviews, and reference checks (Rutledge et al., 2008). I will discuss screening and candidate performance, with a focus on interviews below.

Candidate screening. The applicant screening phase received scant attention in the reviewed literature except when integrated with the selection overall. When separated, it was described as a vetting process to ensure that candidates had completed online paperwork, held the necessary credentials, and had not committed a crime that would disqualify them (Liu & Johnson, 2010; Mason & Schroeder, 2010).

Either principals or human resources personnel usually do teacher screenings, although some districts used commercial screening instruments (Cannata et al., 2017). Principals used online data systems where applicants provided information such as work experience, résumé, cover letter, and references, as well as biographical and certification information (Engel & Finch, 2015; Liu & Johnson, 2006; Mason & Schroeder, 2010; Rutledge et al., 2008). Screening interviews were not described in the research reviewed, although they are used in BCPS by human resources staff who provides a rating to principals, and Liu and Johnson (2006) reported that some candidates were interviewed more than once.

Screening is often a cursory evaluation of candidate paperwork; however Rutledge et al. (2008) found that principals and other hiring officials in a midsize Florida

Table 3

Study	Data sources used
Cannata et al. (2017)	Screening documents Interviews
	Sample lesson
DeArmond et al. (2010)	Interview
Engel & Finch (2015)	Only referred to interview
Liu & Johnson (2006)	Screening documents Interviews
	Sample lesson (0.4% of the time)
Mason & Schroeder (2010)	Only referred to interview
Rutledge et al. (2008)	Interview
	Employer/cooperative teacher recommendation
Supon & Ryland (2010)	Only referred to interview
Whitworth et al. (2016)	Direct experience with the candidate Interview

A Sampling of Data Sources Used for Teacher Selection

school district felt that their screening process was effective enough that they did not have to take much time for interviews or other data gathering exercises.

Candidate performance. Screening narrows the candidate pool, and then most principals ask the remaining candidates to do something. That something is most often an interview (see Table 3). The interview is so important that Delli and Vera (2003) called it the "cornerstone" of the employment process for hiring teachers (p. 137). Supon and Ryland (2010) discussed the "pre-interview process" and the "interview process" as the only steps for hiring teachers. Liu and Johnson (2006) found that 91% of the teachers from four states participated in at least one interview prior to being hired. The interview

ranked as most important in all but one article, which ranked it second in the decision making process behind direct experience with the candidate (Whitworth et al., 2016). Principals might assume candidates are skilled due to required minimum competency licensing standards, therefore they focus on interviews rather than demonstration of skills (Delli & Vera 2003).

Most studies did not discuss or report demonstration lessons or other exercises for the candidate to show their teaching abilities and when included they reported minimal usage (Cannata et al., 2017; Liu & Johnson, 2006). Principals in the DeArmond et al. (2010) study felt that they did not have enough information from the interview to make informed decisions; however, they did not add other data sources such as requiring candidates to teach a sample lesson. Some even felt that this addition might have dissuaded applicants, while one principal thought it was against policy. Very rarely in the research were teacher candidates asked to demonstrate a lesson or provide a video of their teaching although Cannata et al. (2017) reported that principals were more likely to use other sources of information in addition to an interview in systems that had expectations to do so.

Cannata and coauthors (2017) found that only two thirds of principals used observation data, evaluation ratings, and student achievement information to hire teachers transferring within their districts even though the data was available to them. Outside of candidate performance in the interview, the two other data items most described were relevant experience and the opinion of former supervisors (Rutledge et al., 2008;

Table 4

Study	Professional Characteristics	Personal Characteristics
DeArmond et al. (2010)	Experience Subject knowledge Classroom management Instruction	Positive personality & disposition
Delli & Vera (2003)	Competence	Likeability Attractiveness Similarity and difference
Harris et al. (2010)	Strong teaching skills	Caring Diversity Enthusiastic
Ingle et al. (2011)	Strong teaching skills Subject knowledge	Caring Personality
Mason & Schroeder (2010)	Subject knowledge Professionalism	Excitement Appearance Confidence Love of children
Supon & Ryland (2010)	Knowing how to create a positive environment Student oriented	Believing all children will learn Enthusiasm

Characteristics Desired in Teacher Candidates

Whitworth et al., 2016). Non-written references were important in decision making, while written references were less so (Mason & Schroeder, 2010).

Due to the importance of the interview in teacher hiring, it is useful to know what principals want to learn during an interview. As can be seen in Table 4, teacher candidates are often differentiated from each other based on personal as well as professional characteristics. Most studies found that principals prioritized personal characteristics such as enthusiasm and caring as perceived during the interview (e.g. Delli & Vera, 2003; Ingle et al., 2011; Mason & Schroeder, 2010), although Harris and coauthors (2010) found evidence that professional characteristics might be more important to a selection team in their decision making than others reported.

The two main elements in the framing phase are screening and interviews when principals decide whom to hire. It is clear that artifacts such as résumés or portfolios have less importance than interviews (Whitworth et al., 2016), but more research is needed to determine which methods are most effective to hire successful teachers. Further research is also needed to explore the relative importance of structured or unstructured interviews, interview rubrics, and demonstration lessons as well as other candidate performance tasks. The value of these practices was not addressed in the literature I reviewed.

The valuation phase. Most of the research on teacher selection is focused on the framing and editing phase of the decision making process. However, Cannata et al. (2017) reported that a principal's professional judgment regarding a teacher's potential effectiveness or a teacher's ability to improve played a large role in the hiring decision. As discussed above, principals may consider both professional and personal characteristics as they decide whom to hire (see Table 4). This area also has received little attention in industry, but one study identified two strategies to weigh cues in hiring (Hanák et al., 2013). The Weighted Additive Strategy is used if a principal values all characteristics elicited and cues received from an interview and weighs each against the others prior to making a decision. If a principal uses the Take the Best Strategy, they

would identify the most important characteristics and the candidate that possesses them would be hired. Over four trials in their study Hanák et al. (2013) found that employers used the Weighted Additive Strategy 82% of the time regardless of gender, age, or experience. However, their study did not involve principals and more studies are needed to determine if principals use the same strategy and to identify the relative importance different types of characteristics to positions in teaching.

Some principals reported confidence in their hiring decisions after spending only five to 20 minutes with a candidate and sometimes felt that demonstration lessons or videos would misrepresent a candidate's teaching ability (Rutledge et al., 2008), while other principals were skeptical about their ability to assess candidates from the interview process (DeArmond et al., 2010). Neither Rutledge et al. (2008) nor DeArmond et al. (2010) measured teacher effectiveness after the hire so it is impossible to determine if these principals correctly interpreted their ability to make such an important decision (DeArmond et al. 2010; Rutledge et al. 2008). It seems likely that a quicker process would lead to more errors in judgement than one that takes longer than 20 minutes.

Cannata and coauthors (2017) reinforced this assumption that more scrutiny is better by categorizing high-use principals as those that incorporated and evaluated the most data into their hiring processes, including teacher effectiveness data, interviewing, and demonstration lessons. They surveyed and interviewed principals and central office staff in eight districts across six states and found that most principals used teacher effectiveness hiring data if it was available to them, but about one third of principals did not. They identified those whom did not as low-use principals who used only the traditional approach of reference checks and interviews, with occasional demonstration lessons. Both used professional judgment as an important asset, but only the low-use principals used it as their primary data point. Importantly, principals were more likely to use all of the data available to them if their school system set clear hiring process expectations. They also found that some principals were limited in their ability to use all of the data available to them in the hiring process because they lacked the analytical skills to draw meaningful conclusions. This may indicate a need for added principal support or training.

More research is needed to learn about the valuation phase of the principal decision making process for hiring teachers. Two sources of literature that might inform this future research are teacher fit and effective hiring practices in industry, specifically interviewing. I will review each individually below and suggest ways that principals might use the findings from this research to make better hiring decisions.

A Review of the Literature on Employee Fit

One of the ways to inform a principal's hiring decision is through looking for a good match between the candidate and the position. When making a match between employer and employee, it is important that all players are satisfied. As Boyd, Lankford, Loeb, and Wyckoff (2013) have said, "teachers differ fundamentally from other school resources" (p. 84). Teachers, unlike other school resources, have preferences so the match has to be two sided. This match between teacher and school, called fit, is more stable if preferences on both sides are met (Boyd et al., 2013). Research regarding teacher fit, specifically, and employee fit more generally, is often done through Likert

scale questionnaires where teachers assess their own fit (Bogler & Nir, 2015; Chan, Lau, Nie, Lim, & Hogan, 2008; Ellis et al., 2017; Liu & Johnson, 2006; Pogodzinski, Youngs, & Frank, 2013; Vancouver & Schmitt, 1991; Vancouver, Millsap, & Peters, 1994). In one study principals reported on their own preferences (e.g. Ingle et al., 2011), and in another, both novice teachers and colleagues provided information (Pogodzinski et al., 2013). In this section I define person-environment (PE) fit, discuss four forms within PE fit, to include person-organization fit, and how each is used, and I review fit studies specific to teachers in K-12 education.

Person-environment fit. When making their decision on whom to hire, principals must take into account how well a new teacher will meet the needs of the specific job, the school, and its students and staff. This match between the employee and their work environment is called "fit". The literature on fit is reliant on the assumption that there are interactions between an individual and the work environment such that the person may fit some environments and not others (Bretz & Judge, 1994). Good fit occurs when these interactions are positive on both sides, and it generally results in more successful employees. This important match has been studied for more than 100 years in industry and is broadly referred to as person-environment (PE) fit (Kristof-Brown, Zimmerman, & Johnson, 2005). PE fit has been described as the compatibility between the employee and the environment, and more specifically as either goal congruence, or when characteristics of the work environment and the individual are well matched (Bretz & Judge, 1994; Kristof-Brown et al., 2005). *Types of person-environment fit.* There are several types, or forms, within PE fit and four will be discussed here, namely person-organization (PO), person-job (PJ), person-group (PG), and person-supervisor (PS) fit (Bretz & Judge, 1994; Chatman, 1989; Kristof-Brown et al., 2005; Kristof, 1996; Youngs, Pogodzinski, Grogan, & Perrone, 2015). There are varied definitions across studies for each form, but fit is most often defined as matching characteristics or congruent goals between the person and the specific element of the environment.

Person-organization fit. Kristof (1996) defined optimum PO fit as, "the compatibility between people and organizations that occurs when: (a) at least one entity provides what the other needs, or (b) they share similar fundamental characteristics, or (c) both" (pp. 4-5). This definition of PO fit allows not only for similarities of characteristics, but also allows for differences depending on needs of the organization, such as a school. Ingle et al. (2011) define PO fit in terms of compatibility with the values and culture of the organization instead of characteristics. One could predict that in some organizations the difference between these definitions would be inconsequential, but in others each definition might yield different results.

Principals may seek a teacher with different attributes or skills than those already in the school because they notice gaps or the need to move in a new direction. PO fit can either be in the form of similarities (supplementary) or differences (complementary) (Kristof-Brown et al., 2005; Werbel & Johnson, 2001). Complementary fit happens when a gap is filled by the individual's characteristics in the organization or when the organization fills a gap for the individual, whereas supplementary fit occurs when the person and the organization have similar characteristics (Kristof-Brown et al., 2005). A principal can add teachers with new innovative practices only if they are looking for someone dissimilar to those already at their school as in complementary fit. Conversely, they may need someone who can easily blend in to achieve school goals as in supplementary fit. Applicants assessed for PO fit should be evaluated based on the organization's needs as well as the job requirements. PO is the broadest form of PE fit and may be the most appropriate focus of a hiring team if movement across grades or subjects is desirable for the open position (Werbel & Johnson, 2001).

Person-job fit. PJ fit is narrower and measures how well the employee characteristics align with the job description, in other words, how well a person's KSAs match the job demands (Kristof-Brown et al., 2005; Sekiguchi, 2007) whereas PO fit includes KSAs as well as characteristics and/or professional goals. In teacher selection, PJ fit is related to teacher-assignment (e.g. the grade level or subject). There are two types of PJ fit. PJ fit has a demand-supplies type which matches the demands of the job and the abilities of the person as well as a needs-supplies type where the needs of the person and the supplies of the job match (Edwards, 1991). Until the mid-1990's the literature on employee selection and fit focused on PJ fit, especially the demands-supplies type, as employers looked for KSAs of prospective employees to fill the needs of the employers (Adkins, Russell, & Werbel, 1994; Kristof-Brown et al., 2005) which would be more appropriate for a school than the needs-supplies type. Werbel and Johnson (2001) assert that hiring for PJ fit is most applicable when a job is technical and consistent and when the employees have clearly defined responsibilities and are generally independent of each other. Teaching is technical, but children are unpredictable so this may not be the most useful form of fit to inform principal hiring decisions.

Person-group fit. One of the least studied areas of fit is PG fit (Kristof-Brown et al., 2005). Ingle et al. (2011) described it as a "variation on the PO theme that focuses on the fit with the smaller group of workers with which the employee will most closely interact" (p. 584). Similarly, Kristof-Brown et al. (2005) write that PG fit looks at the psychological compatibility through goals, values, and personality traits. However, Werbel and Johnson (2001) define PG fit more broadly as how well an employee and their immediate work group match, or their working compatibility. PG fit is most useful only if team norms and values are stable and when the position requires a great deal of interpersonal interactions among the group members (Werbel & Johnson, 2001). As in PO fit there are elements of supplemental and complementary fit within PG fit. Groups are dysfunctional unless both elements are present (Werbel & Johnson, 2001). Werbel and Johnson (2001) found that supplementary PG fit has the greatest effect on cohesiveness and cooperation and that complementary fit ensures that all necessary skills of the workgroup are fulfilled and affects task orientation. Applicants assessed for PG fit should be evaluated based on the needs that have been identified within the group. Most K-12 teaching is not done through a cohesive team effort so PG fit may not be the most useful form in teacher hiring.

Person-supervisor fit. A fourth type of PE fit, person-supervisor (PS) is found in some research, but has not been found to correlate to employee attitudes as strongly as the other types of fit (Kristof-Brown et al., 2005). PS fit is the dyadic match between

individuals and their supervisor. This form of PE fit includes studies focused on goal or value congruence as well as attribute similarity between the employee and their supervisor.

Figure 1 illustrates that PJ fit is foundational to all of the others. Each of the other types of fit include KSAs that define PJ fit. In this model the school, its principal, and teachers all share a common overarching vision and mission with the district, thus the other types of fit are nested within each other. Of course there would be several schools within this district and each could have a unique culture and approach to the overall mission. While a teacher may have the necessary technical skills (PJ fit) to be able to work in more than one school they might not be a good fit with a team (PG) or principal (PS). For example, one school may take a traditional age-based approach and another

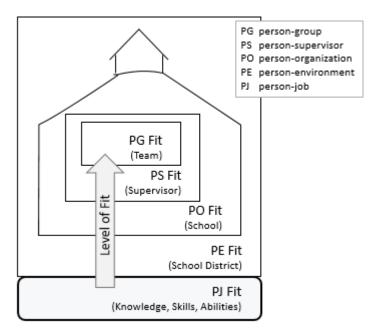


Figure 1. Types of person-environment fit. This figure illustrates how person-job fit is foundational to the other types of fit and how the others are nested inside each other when districts, schools, principals, and teams are unified in vision and objectives.

might include multi-age classrooms. In this case, a candidate with good KSAs who does not value a multi-age setting would be a good fit for the traditional school and not the other. Similarly, a qualified candidate might not fit well with a particular team within a school. There would be several groupings of teachers within each school, which informs PG fit such as a grade level team, department, and collaborating teachers.

All forms of fit may be important to a good match depending on the job and organization and should be addressed in hiring (Werbel & Johnson, 2001), but principals should focus their decisions based on the identified needs of their specific job and organization. In a school division that practices site-based leadership and has an aligned vision and mission among schools, a principal might look for a qualified teacher who also meets the needs of the unique school culture (PO fit) and the grade level team (PG fit). They might, however, be more interested in a candidate with excellent technical skills and hire for PJ fit without looking for fit in attributes, goals, or values.

Evaluating fit. The three main ways to evaluate fit are the employee's job satisfaction, organizational commitment, and intent to quit (Kristof-Brown et al., 2005). When there is a poor fit the employee tends to be unsatisfied, uncommitted, or plans to leave for other job opportunities, whereas the opposite is true with a good fit. A person can be a good fit to one form of the environment and not achieve a good fit with others, so researchers work to identify which type of fit is most useful in different employment or organizational situations.

Through a meta-analysis of 172 fit studies (mostly in business, but also in education), Kristof-Brown and coauthors (2005) found that fit correlation strength with

these three attitudes varied according to the type of fit measured. Table 5 shows selected results indicating that PJ fit had a strong positive correlation with job satisfaction and organizational commitment, while having a strong negative correlation with intent to quit, while PO fit was strongly positively correlated only with job satisfaction and organizational commitment with intent to quit only moderately negatively correlated. PG fit was only weakly correlated to all three (positively to satisfaction and commitment, and

negatively to intent to quit). PS fit was only moderately positively correlated to

job

satisfaction with no real correlation to organizational commitment. It is important to note that Kristof-Brown and colleagues felt that one of the studies included in the metaanalysis skewed the results of the PO fit correlations with the three attitudes. When they analyzed the results without the study by Vancouver and Schmitt (1991) the correlation Table 5

	Job satisfaction	Organizational commitment	Intent to quit
Person-job fit 62 Studies 225 Effect sizes	ρ = .56	ρ = .47	ρ=46
<i>Person-organization fit</i> 110 Studies 450 Effect sizes	$\rho = .44$ * $\rho = .50$	$\rho = .51$ * $\rho = .65$	$\rho =35$ * $\rho =47$
<i>Person-group fit</i> 20 Studies 104 Effect sizes	$\rho = .31$	ρ = .19	ρ =22
Person-supervisor fit 17 Studies 57 Effect sizes	ρ=.44	$^{+}\rho = .09$	

|--|

 ρ = estimated true score correlation, *meta-analysis results excluding Vancouver & Schmitt (1991), + crossed zero at 80% CV

was much stronger between PO fit and each of the three attitudes. It is notable that one out of 110 studies could make such a difference. It may be that the study was ill placed by Kristof-Brown et al. (2005) among the forms of fit because its authors label their work to be researching PO fit, but the methods observe specific relationships within the organization that seem more appropriate to PS and PG fit (this teacher fit study is discussed in further detail below). For these reasons, it was sensible for Kristof-Brown and colleagues (2005) to examine the PO fit results with this study removed.

Based on the results of the meta-analysis principals interested in these three important teacher attitudes might focus on PJ fit or PO fit in their hiring decisions because of their high correlation with job satisfaction, organizational commitment, and lack of intent to quit. Neither PG nor PS fit resulted in strong correlations with these measures in the meta-analysis. Importantly, Kristof-Brown et al. (2005) also found that PO-PJ correlation was strong with PO-PG and PJ-PG showing much weaker correlations. Therefore, principals might assume that a high teacher-school fit has a good chance of leading to a strong teacher-assignment fit. The meta-analysis was not focused on K-12 education, but results from industry have been found to apply to teachers (Harris & Rutledge, 2010; Youngs et al., 2015). Still, more research is needed to substantiate this claim.

Fit measuring methods. All forms of fit are measured in one of three ways: (a) as perceived by the employee without comparing their response to another source (perceived); (b) as assessed indirectly by comparing employee answers with answers given by colleagues about each other (subjective); and (c) when each employee reports

only about their goals, values, or attributes and the results are compared to the organization, group, or supervisor (objective) (Kristof-Brown et al., 2005; Youngs et al., 2015). Sometimes research results vary according to method used and cause different conclusions as in the Kristof-Brown et al. (2005) meta-analysis of 62 studies where they found that job satisfaction had a strong correlation when all PJ fit studies were included, but the correlation was low in the studies using only objective measures. It is unclear if one way of measuring is more accurate than the others, but most studies I read used perceived fit measures.

A Review of Fit Research on Teacher Hiring

Researchers have evaluated fit in industry for many years, but very few researchers have examined fit in teacher hiring or even specific to K-12 education (Youngs et al., 2015). Through the search methods described earlier, I was only able to find ten articles specific to teachers and fit. I also found three peer-reviewed studies and several doctoral dissertations on teacher fit that are not included in this review. The excluded peer reviewed K-12 fit studies occurred in countries with highly centralized educational systems outside of the United States, namely Singapore (Chan et al., 2008), Turkey (Erdogan & Bauer, 2005), and Israel (Bogler & Nir, 2015). The differences in a centralized education system make it unlikely that the results are generalizable to the United States, therefore, they were excluded.

Two early studies on teacher fit used the same data set to examine teacher's job satisfaction, organizational commitment, and intention to quit (Vancouver & Schmitt, 1991; Vancouver et al., 1994). In the initial study, Vancouver and Schmitt (1991) examined principal-teacher (PS) and teacher-teacher (PG) goal congruence which was described as how closely correlated the teachers and/or principals were to each other using a standard set of academic and school goals. The follow up study used a subsample of the initial data to further examine these relationships (Vancouver et al., 1994). Liu and Johnson (2006) researched PO fit through new teachers' experiences during the hiring process. Little and Miller (2007) studied PO fit in rural areas to see if leaders' values were correlated with teacher selection practices and fit. Harris and Rutledge (2010) analyzed effectiveness in teaching compared with PO and PJ fit models of effectiveness in other professions. Ingle et al. (2011) looked at fit priorities in hiring from the principal perspective. Pogodzinski et al. (2013) analyze how novice teachers' relationships with colleagues (PG fit) affect the novice's intent to remain in teaching. Jones, Youngs, and Frank (2013) compare the experiences of novice general education teachers with special educators in regards to colleague support, PO fit, and commitment to their profession and school. Youngs et al. (2015) analyzed PO fit research from industrial and organizational psychology as compared with the PO fit research regarding commitment and teacher retention and proposed a PO fit model to predict key outcomes regarding teacher instructional success. Ellis et al. (2017) examined archival data from teacher questionnaires to determine if accurate job previews affected PO or PJ fit and teacher satisfaction rates. In addition to these ten, four more articles were found that included the term "fit" in some of the same ways as the fit model literature (and explore teacher selection practices), but did not adopt fit models as part of the research (Boyd et al., 2013; Cannata, 2010; DeArmond et al., 2010; Engel, 2013).

Vancouver and Schmitt (1991) examined survey data from 36 states and Canada with 356 principals and 14,721 teachers from 362 schools. Most of the participants worked at high schools (69%) and only about 10% of participants were from elementary schools, with the rest in middle schools. Each rated the importance of 14 non-operational school-related and academic goals with the intent to measure values. The data was analyzed to determine goal congruence for teacher-principal (PS fit) and teacher-teacher colleagues (PG fit).

The researchers found that the PS fit resulted in weak correlations with job satisfaction, commitment, and intent to quit. PG fit was correlated more strongly (and at a statistically significant level) at .28 with job satisfaction, .25 commitment, and -.17 intent to quit. The authors concluded that teachers work more closely with peers than with the principal, and that is why PG fit had more of an impact on teacher attitudes.

The follow-up study by Vancouver et al. (1994) used only complete data sets, which resulted in a sample of 11,633 teachers, and presumably 298 principals, from 298 schools. They hypothesized that if everyone at the school agreed on the goals then the attitude scores would go up, but they were not able to support this hypothesis.

Liu and Johnson (2006) reported the experiences and perspectives through the hiring process of 486 first and second year K-12 public school teachers in four states. This study is one of the few regarding teacher-job (PJ) and teacher-school (PO) fit. They examined both the applicant perspective and that of the principal through perceived fit regarding the amount of information each party used to make their acceptance decision through the framework of fit and they also looked at the importance of job preview to candidate fit. They found that new teachers felt that they were only moderately accurate about how well they predicted their fit based on experiences and observations during the job preview. After being on the job one or two years the majority of teachers reported that they had a better fit with their job than with their school.

Little and Miller (2007) asked 90 superintendents, 30 assistant superintendents, and 94 principals in rural Kentucky about their hiring practices through questionnaires in order to learn if community centrism, traditionalism, social conservatism, and preferring to work with known people (all of which they termed "rural values") would affect teacher hiring practices. They wanted to use this data to determine if perceived fit was more important than actual fit or if community fit was more important than credentials. Their definition of PO fit meant attributes similar to those of other teachers in the organization as well as to the community. Through the survey data they concluded that if a school leader had strong rural values they were less likely to value teacher credentials above community fit. They also claimed that leaders with strong rural values were less likely to hire minorities.

The Little and Miller (2007) study cannot be taken at face value. They cited dissertations in order to build their arguments instead of peer reviewed research articles and used four of their own unpublished studies to validate the questions on their survey as well as the assumption that these four variables were rural values. None of the other research I found cites this study. The results of this study cannot be relied upon due to the troubling use of non-peer reviewed research to establish the foundation for their

research and the fact that they validated their own questions without peer review. For these reasons I am excluding it from further discussion in this paper.

Harris and Rutledge (2010) reviewed research on the nature of teaching and analyzed four predictors of teacher effectiveness (cognitive ability, experience, personality, and education) in comparison with these same predictors in other complex occupations. They define effectiveness as "the degree to which workers produce outcomes related to the objectives of their organizations" (p. 917). They found that the only consistent predictors in teaching, as well as other occupations, were cognitive ability and experience. They analyzed both the PJ and PO fit models when measuring effectiveness in other occupations and described potential value in extending fit models to teaching. They argued that the predictors of effectiveness in teacher overlap considerably with those in other occupations. They write, "there may be much to be learned about teaching from occupational models such P-O and PJ fit" (p. 949).

In a study surveying 184 novice elementary and middle school teachers from 99 schools in 11 districts across two states, Pogodzinski et al. (2013) found that PG fit (what they labeled "professional fit") affects intent to remain in teaching. Novices who had higher levels of fit with their colleagues reported that they were more likely to stay than those who had lower levels of perceived fit ($p \le .01$). Novice teachers responded to questions about how well their approach to teaching, professional interests, and goals fit with others. Additionally, they were asked to what degree they identified with their colleagues, mattered to other teachers, and how much other teachers mattered to them.

All six of their responses provided the perceived measure of PG fit. The authors also collected data on relational trust and sense of collective responsibility. PG fit was the most statistically significant of the three when three separate estimating models were applied to the data with composite effect variables of 0.447, 0.575, and 0.321 (all statistically significant at $p \le .10$). Trust had no significant difference (0.141, 0.128,0.129) in the three models, and collective responsibility was significant in only two of the three models applied with composite effect sizes of 0.412 and 0.360 ($p \le .10$) with the composite effect size of collective responsibility of 0.114 in the third model. They also found that perceived collegial climate had no effect, indicating that getting along with colleagues is not enough for good PG fit.

Jones and coauthors (2013) compared 47 special education and 138 general education teacher experiences from elementary, middle, and high schools in two states during their first three years of teaching in regards to colleague support, PO fit, and commitment to the school and their job. Through survey responses over two years they learned that both special educators and general education teacher's perception of fit was positively associated with job commitment as well as school commitment ($\eta^2 = .23$ for special education and $\eta^2 = .05$ for general education).

Youngs et al. (2015) proposed a theoretical model to measure fit based on previous studies. They analyzed research from industrial and organizational psychology on PO fit and asserted that study results transfer to employee commitment in K-12 education. Based on this, they theorized a PO fit model for elementary mathematics instruction. In their model, a math teacher would need to have strong mathematical knowledge for teaching and strong teaching skills in addition to a high level of PO fit in order to be successful. PO fit in their model only occurs when the needs of both the individual teacher and school are met and there is strong alignment between their goals, values, and expectations. The authors included sample data collection tools proposed to measure perceived PO fit, subjective PO fit, and objective PO fit according to their model of mathematics instruction in an elementary school.

Ingle et al. (2011) found that 90% of the principals (n=21) in a midsize Florida district looked for attributes associated with PJ fit, although they still acknowledged the importance of skills important to being successful on a team and within an organization. This emphasis on PJ fit (instead of PO fit) was confirmed as researchers in this study did not find that the characteristics that principals were looking for in teachers matched their stated organizational priorities. Principals at Title I schools in their study were outliers evenly split between their preference for PJ fit and PO fit as they were more likely than non-Title I principals to look for teachers who could succeed specifically in their school.

The most recent publication is a study using archival data from 13 Texas school districts and 729 teachers. Ellis et al. (2017) used information from teacher questionnaires (adapted from Liu & Johnson, 2006) regarding how clearly they understood their position prior to accepting the job, how well they fit their position, and their level of satisfaction once they accepted the positon. The teachers were from the highest and lowest performing schools in the districts and had only been employed in their school for two years or less. Ellis and coauthors (2017) found that both satisfaction with the profession and the school increased when there was an accurate sharing of

information between the employer and prospective employee, or job preview. In fact, both PO and PJ fit were directly influenced by the accuracy of the job preview. They also found that PJ fit resulted in greater satisfaction with the profession whereas PO fit led to higher satisfaction with the school. PO and PJ fit combined accounted for 26.5% of the variance in profession satisfaction and 53.3% in satisfaction with the school.

As a result of analyzing these studies as a body one cannot draw definitive conclusions in regards to which form of fit, or combination of forms, might be most useful for principals to apply when deciding whom to hire. There are effectively eight articles since two used the same data set (Vancouver & Schmitt, 1991; Vancouver et al., 1994) and one was excluded (Little & Miller, 2007). Only five of these articles measured fit and they did so in a variety of ways that make it hard to compare results. Only one measured correlations with regards to job satisfaction, organizational commitment, and intent to quit (Vancouver & Schmitt, 1991) as is commonly done in industry research. Ellis et al. (2017) reported measures of association, three reported means from responses to fit questions on Likert scales (Jones et al., 2013; Liu & Johnson, 2006; Pogodzinski et al., 2013) and Ingle et al. (2011) determined the type of fit that principals were looking for in the hiring process after coding the interviews. Among these different measures, only four of the studies used the language common to the industry terms (i.e. job satisfaction, organizational commitment, and intent to stay) (Ellis et al., 2017; Pogodzinski et al., 2013; Vancouver & Schmitt, 1991; Vancouver et al., 1994).

Accepting these limitations, there were still some strong correlations in the results. PG fit was found to correlate with desired attitudes in two studies (Vancouver &

Schmitt, 1991; Pogodzinski et al., 2013), but the correlation numbers reported were not as high as those of PO or PJ fit in the meta-analysis of industry research (Kristof, 1996). Interestingly, collegial climate did not have the same effect as PG fit (Pogodzkinski et al., 2013), which means that it is more important to work well with each other than to get along with team members. In other words, colleagues can be friends and still not have job satisfaction, organizational commitment, or intent to stay at their organization. PJ fit was also found to be important to commitment to the teaching profession in two studies and both emphasized the importance of realistic job previews as well (Ellis et al., 2017; Ingle et al., 2011). PO fit was identified as important to principals, but, except for in Title 1 schools, their enacted preferences indicated that PJ fit was a higher priority (Ingle et al., 2011). PO fit did result in a higher commitment to school and job in some studies as well (Ellis et al., 2017; Jones et al., 2013). Each of these forms of fit may be important in teacher hiring, but more research is needed to replicate the results and differentiate the importance of each.

The articles reviewed included data on several different forms of PE fit, but further research must be done using common measures that are standardized in industry research. Based on Harris and Rutledge's (2010) assertion that teaching is not a unique profession in regards to applicability of fit models, principals could glean information from industry research to decide which form of fit is most useful in their situation and apply it in their hiring decisions. However, until more research is complete principals must make assumptions as they consider what type of fit might best help their students and then hire accordingly. While looking at fit it is important for principals to be aware of, and consider, the characteristics that describe effective teachers.

A Review of the Literature on Effective Hiring Practices in Industry

The research base around teacher hiring is very much still in its infancy in comparison to more than 100 years of employee selection research in industry (Schmidt & Hunter, 1998). In fact, hiring research is one of the most "prolific areas of publication" in industrial and organizational psychology (Nowicki & Rosse, 2002). Over more than 100 years researchers have written about a variety of tools employers have tried to help them select good employees. In a meta-analysis covering 85 years of research, Schmidt and Hunter (1998) described 19 individual selection tools for hiring. Some of them eventually were found to have no value in predicting future job performance. For example, graphology, the analysis of handwriting to determine personality, was a popular hiring practice in the 1980's and 1990's even though it had no value in predicting future job performance (Schmidt & Hunter, 1998). The same study found that years of education and interest in the job were only slightly more predictive than graphology, yet, unlike graphology, they are still used today. These authors assert that tests that determine general mental ability are the best indicator of future job performance. In fact, they wrote that general mental ability should have "special status" and can be considered the "primary personnel measure for hiring decisions" especially when paired with structured interviews (Schmidt & Hunter, 1998, p. 266). There is some evidence, however, that even valid tools to predict job performance, like cognitive tests, may undermine diversity that can result in legal risk due to hiring discrimination

(Williams, Schaffer, & Ellis, 2013). Interviewers often believe an ongoing myth, that they can hire good candidates intuitively and that they get even better with experience (Highhouse, 2008). Also, there is some evidence that the more objective an interviewer believes themselves to be, the more their personal biases affect their decision (Uhlmann & Cohen, 2007). It is possible however for employers to increase productivity, decrease bias, and improve their workforce, through using proven procedures and tools in a systematic way (Bäckström & Björklund, 2017; Schmidt & Hunter, 1998).

Although there are many possible hiring practices, I will examine the research on interviewing because it is the primary tool used to hire teachers (Delli & Vera, 2003; Supon & Ryland, 2010) and it has a variety of formats and can be assessed in several ways. The interview is so important in the teacher hiring process that Delli and Vera (2003) called it the "cornerstone" (p. 137). Research in industry has identified useful tools and processes to make the interview process more fair and valid. Due to the importance of interviewing in teacher hiring (Delli & Vera, 2003; Supon & Ryland, 2010), as well as hiring in general, I will focus the review of hiring literature on how to effectively interview to hire for good job performance and will only briefly discuss other methods.

The interview has been the most popular and widely used selection procedure by employers for at least 100 years and its continued importance is certain (Buckley et al., 2000). Interviewing is often the only method that employers use to assess candidates, but can sometimes serve as the initial screening tool, or the final gatekeeper (Levashina et al., 2014). Interviews have been found to assess personality traits, general mental ability, job knowledge, and experience (Levashina et al., 2014).

Much of the research on interviewing is aimed at reducing the error in predicting employee performance (Schmidt & Hunter, 1998), although it is important to recognize that uncertainty is inevitable and no hiring tools could ever predict with 100% accuracy (Highhouse, 2008). Industrial and organizational psychology research over many decades has successfully developed decision aids for hiring that impressively reduce the error in predicting employee performance (Schmidt & Hunter, 1998). But all too often, even when they know about these tools, interviewers fail to use them (Highhouse, 2008; Nolan & Highhouse, 2014).

Interviews vary by amount of structure, and there is almost universal agreement that structured interviews are more predictive of job performance than unstructured interviews, yet there is not agreement on amount or type of structure necessary (Culbertson, Weyhrauch, & Huffcutt, 2017; Huffcutt, Culbertson, & Weyhrauch, 2013; Macan, 2009). In fact, it is common for researchers to lament the lack of a standardized definition of a structured interview (e.g. Dixon et al., 2002; Levashina et al., 2014; Macan, 2009).

Levashina et al. (2014) analyzed the literature on structured employment interviews from 1996 building on the work of Campion, Palmer, and Campion (1997) who reviewed the earlier years. In their classic paper, Campion et al. (1997) define the term broadly to mean interview enhancements that increase standardization or otherwise assist the interviewer in determining what to ask or how to evaluate candidate responses.

Table 6

Interview contentBase questions on a job analysisAsk exact same questions of each candidateLimit prompting, follow-up questioning, andelaboration on questionselaboration on questionsUse better types of questionsSituational, Behavioral, Background, JobKnowledgeUse longer interview or larger number ofquestionsControl ancillary information (resumes, testscores, portfolios, etc.)Do not allow questions from candidate untilInterview EvaluationRate each answer or use multiple scalesUse detailed anchor rating scales
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Take detailed notes Improve reliability and validity
Use multiple interviewers Improve reliability
Use same interviewers across all candidates Improve reliability, decrease variability
Do not discuss candidates answers between Enhance validity
interviews
Provide extensive interviewing training Ensure other components are
implemented
Use statistical rather than intuitive/professional Improve reliability prediction

Components of Interview Structure from Campion et al. (1997)

They provide 15 essential components, which are categorized as affecting interview

content or the evaluation of the interview as shown in Table 6. Levashina et al. (2014)

call for a consensus on the meaning of structure and point out that researchers often use

the term, but do not always include all 15 of the elements as described by Campion et al.

(1997).

As there is no common definition of interview structure, hiring research

frequently analyzes how much employers should structure an interview (Buckley et al.,

2000; Culbertson et al., 2017; Huffcutt, Roth, & McDaniel, 1996; Levashina et al., 2014; Nowicki & Rosse, 2002). There is not universal agreement, but the seven most important elements to reduce bias and improve decision making seem to be: job analysis, same questions, and better types of questions in interview content, rating each answer, using anchored scales (ARS), using multiple interviewers, and training (Campion et al., 1997; Levashina et al., 2014). However, it may be that all of the structure components are necessary to eliminate bias (McCarthy, Iddekinge, & Campion, 2010). Below I will review the seven elements most used and researched according to a recent literature review by Levashina and coauthors (2014). I review these seven elements through metaanalysis research, literature reviews, and experimental studies in an effort to inform principal decision making.

Performing a job analysis. The first element of interview structure is the job analysis. This is done prior to the interview in order to determine which KSAs and attributes are necessary to do the job. Job analysis is described as the most "critically important management activity in every organization" (Singh, 2008, p. 87) and the need is "so well established" that it is used for all types of selection tools (Dixon et al., 2002). An accurate job analysis is meant to keep the interview focus related to the job instead of tangential or unrelated topics (Campion et al., 1997). Campion and coauthors also indicate that knowing KSAs allows employers to write questions around critical incidents to solicit answers that differentiate candidates. The job analysis process is complex and can take a great deal of time. For example, to create questions for a police position, police officers identified 283 "critical job behaviors for nine dimensions of police performance" (Maurer, 2002, p. 313). Researchers have found, however, that using a job analysis improves the selection decisions (Bäckström, & Björklund, 2017) and is worth the time and effort.

Creating and using better interview questions. Two elements of interview structure involve the interview questions, namely asking the same questions and using better types of questions (Levashina et al., 2014). Using the same questions standardizes the interview and makes it a more fair and legal process (Dixon et al., 2002). There is also some reason to believe that prompting and follow-up questions should be minimized to increase fairness (Levashina et al., 2014; McCarthy et al., 2010).

Three main types of questions are used to connect the job analysis to the interview. The three types are: past-behavioral (PBQ), situational (SQ), and experience-based (EBQ) (Campion et al., 1997; Culbertson et al., 2017; Huffcutt et al., 1996; Levashina et al., 2014; McCarthy et al., 2010). Questions designed to solicit answers that describe a candidate's behavior during relevant situations in their past are considered to be PBQs and are based on the premise that past behavior is the best predictor of future behavior (Culbertson et al., 2017). SQs ask candidates to respond to hypothetical situations and assume that intentions are the best predictor of future behavior (Culbertson et al., 2017). EBQs are those requiring a candidate to talk about their qualifications such as work experience and training (McCarthy et al., 2010).

Although they do agree that interview questions should be based on a job analysis and be the same for each candidate, researchers do not agree on which of the three types of questions are most valid (Culbertson et al., 2017; Dixon et al., 2002; Levashina et al., 2014). Both Culbertson et al. and Levashina et al. performed meta-analyses, but had different results. Culbertson et al. (2017) concentrated on the types of questions asked in an interview while Levashina et al. (2014) reviewed all 15 structural elements. Levashina et al. found that PBQ may have slightly higher validity than SQ in complex jobs, but Culbertson et al. (2017) found that SQ was more predictive. Researchers suggest that both PBQ and SQ be used to complement each other because they probably measure different constructs (Culbertson et al., 2017; Dixon et al., 2002; Levashina et al., 2014).

Rating candidate answers. Two more elements of interview structure are rating each answer individually and using an anchored rating scale as a rubric to rate them (Levashina et al., 2014). Dixon et al. (2002), in their review of the literature, write that using anchored rating scales or scoring benchmarks is important to the quality of the candidate selected. Rating each answer is more targeted than solely providing an overall rating, and the combined ratings make the scoring more extensive than waiting until the end to give an overall rating (Campion et al., 1997). Anchored rating scales also reduce cognitive load because the raters (e.g. principals) can refer to the rating anchors to remind them of different levels of competence necessary for each rating level rather than trying to store all of the information (Melchers, Lienhardt, Von Aarburg, & Kleinmann, 2011). Anchored rating scales are developed prior to the interview and are composed of sample answers or descriptions of critical components anticipated in an answer along with corresponding scores (Campion et al., 1997). In sum, "Rating anchors reduce rater

idiosyncrasies by providing a common evaluative standard to which interviewers can refer each time they are evaluating a candidate's answer" (Melchers et al., 2011, p. 57).

In one experiment, undergraduate business students who were trained to use an anchored rating scale were just as accurate and reliable in choosing qualified candidates as experienced police officers when rating videotaped interviews for a position as a police officer (Maurer, 2002). In the same experiment, Maurer found that experienced police officers using a more traditional scale of 1=highly unacceptable to 5=highly acceptable were consistent only in their inaccuracy and disagreement across interviewers even though they used four of the essential structures identified by Campion et al., 1997. The more traditional scale did not use time or resources, as did the anchored rating scale, but the results were of little value.

Using multiple interviewers. The use of multiple interviewers seems to reduce the impact of bias and helps to discard inferences that are not relevant (Campion et al., 1997). Panel interviews may result in 70% more inter-rater reliability and be more valid than a single interview conducted by just one person (Huffcutt et al., 2013), even though the research has yielded inconsistent results (Dixon et al., 2002). Even so, panel interviews are more likely to reduce bias (Segrest Purkiss, Perrewé, Gillespie, Mayes, & Ferris, 2006), or at the very least, increase perceived fairness (Macan, 2009). Thus, they are valuable even if their reliability and validity are uncertain.

Training interviewers. All too often researchers observe that "untrained interviewers conducting unstructured interviews are brimming with confidence about their ability to predict future job performance" (Chapman & Zweig, 2005, p. 696).

Interviews become more fair and predictive of job performance, however, when elements of structure are faithfully used (Huffcutt et al., 1996; Huffcutt et al., 2013; Nowicki & Rosse, 2002; Rynes, Colbert, & Brown, 2002; Schmidt & Hunter, 1998). Training interviewers ensures that the other components are implemented correctly.

In one study, even a slightly better understanding of the anchored rating scale improved the decision maker's rating ability (Bäckström & Björklund, 2017). All study participants read a detailed job description (from a job analysis) and half answered questions specific to job quality and were provided feedback on their answers. This simple training caused a significant difference in ability to accurately select quality candidates.

Although it is widely agreed that training improves results, frequently interviewers remain untrained. Only 34% of interviewers received training in one study of 338 organizations representing a wide variety of industries, interviewing 812 applicants (Chapman & Zweig, 2005). These same researchers found that only 28% of 164 interviewers in a sample the following year received any type of formal training. Interviews are complex and require skill that can be taught (Campion et al., 1997), but employers must take the time to teach. Training could consist of a) learning about the importance of structure in interviews; b) information regarding the open position, or job analysis; c) rating of sample answers based on the anchored rating scale to improve interrater reliability; and d) legal issues surrounding candidate selection (Chapman & Zweig, 2005; Melchers et al., 2011). When interviewers are trained, they are more likely to include elements of structure into the interview including evaluation standardization, higher question sophistication, and questioning consistency (Chapman & Zweig, 2005).

Each opening is unique and may require KSAs that could be largely discovered through a well-designed interview that incorporates proven practices of structure. As elementary school principals use these proven methods they will be more likely to find effective teachers that fit the needs of their school.

Principal Hiring Decisions

As written above, teacher hiring practices have not been thoroughly studied and there is scant research on teacher fit (Youngs et al., 2015), with even less research integrating fit with principal hiring decisions (Ingle et al., 2011), although all are becoming increasingly studied areas. Conversely, the same practices have been well researched in industry for many years (Buckley et al., 2000; Dixon et al., 2002; Highhouse, 2008; Nowicki & Rosse, 2002; Schmidt & Hunter, 1998). In the previous sections I reviewed research on hiring practices in k-12 education, teacher fit research, and effective interviewing practices. In order for principals to make good hiring decisions they should use structured interviews designed to match the candidate to the requirements of the job to best meet the needs of students. This section brings these research areas together providing a synthesis as well as providing direction for future research.

Selecting a teacher for good fit, regardless of type, is reliant upon what is already present in the environment, each principal should ensure that school goals and philosophy are on point for student success. They should do a thorough job analysis considering the KSAs necessary for success in the position as well as the health, philosophy, and focus of the team with the opening. One could find a teacher with great fit to a school with misguided goals, a job description that is misaligned with the position, or a team that is unhealthy. In each case perceived fit might be high, but students would not benefit as a result. My analysis assumes that all of these elements are correctly aligned to foster student success prior to the teacher hiring process.

Principals must make important decisions, such as those described above, prior to screening or interviewing (as described in industry research through structure), but the K-12 research only addresses this tangentially through identifying desired teacher candidate characteristics as shown in Table 4. It is not clear which characteristics are most important in a well-qualified teacher although Harris and Rutledge (2010) found that experience and cognitive ability were predictors of teacher effectiveness and personality and education were not. Several of the K-12 studies indicated that personal characteristics (DeArmond et al., 2010; Delli & Vera, 2003; Ingle et al., 2011) Harris et al. (2010) indicated that principals looked for both personal as well as professional characteristics. However, Ingle et al. (2011) found in their study that principals generally preferred personal characteristics above professional characteristics. Through following the elements of structure, principals could better identify the priorities clearly, but these studies didn't discuss job analysis or the other important interview structure elements.

Principals often reported sharing responsibility in the hiring process (DeArmond et al., 2010; Engel & Finch, 2015; Pogodzinski, 2016) and this team approach is an

important element in structured interviews (Campion et al., 1997; Levashina et al., 2014). Also, realistic job previews are important to ensure good fit (Ellis et al., 2017; Liu & Johnson, 2006) and a team approach may provide a candidate with a better perspective of the organization and the job. Training was not discussed in the K-12 research and that may be key for inter-rater reliability and validity.

The K-12 literature did not address structured interviews and the elements of structure were not identifiable in the study descriptions, therefore it is unknown if principals use this important tool. It is doubtful that most principals consider any form of PE fit because research in this area is so scarce that they probably are unaware of it. It is not known if they are aware of the increased validity and predictability of structured interviewing because I could not find any relevant studies. It is likely that principals use their professional judgment (Cannata et al., 2017) or gut (DeArmond et al., 2010) to hire for characteristics that they think will best serve the students and their school. There is no evidence that professional judgment and gut instincts are the most predictive way to hire effective teachers (Chapman & Zweig, 2005).

It is unclear whether most principals know much about PE fit research and the varied definitions or forms may confuse those that do. Different forms of PE fit are described in terms of common characteristics (Kristof, 1996), values and culture (Ingle et al. 2011), or goals and psychological compatibility (Kristof-Brown et al., 2005), and the forms of fit are interrelated and overlap. Perhaps more challenging still is the assertion that Harris and Rutledge (2010) made that educators don't agree on our overall goal or philosophy in education, which might lead to the problem of principals not agreeing on

the most important look fors in hiring because they can't agree on the overall educational goal. Further, there are legal implications if a principal hires based on common characteristics, values, or culture as this may introduce bias into the decision.

In order to evaluate a candidate for a good match, the literature indicates that principals should use evidence-based hiring practices. They should be thorough and effectively evaluate applicants. Much can be learned in a structured interview such as personality traits, general cognitive ability, job knowledge, and experience (Levashina et al., 2014). However, it is important to know if teachers are able to perform well. With this in mind, the literature suggests that principals would make a more informed decision if they used a multi-stage hiring process in lieu of basing their decision almost entirely on a candidate's interview and a screening of the application. Bowen et al. (1991) describe an effective hiring process as one that proceeds over several days with the applicant participating in multiple exercises with several raters. Successful businesses tend to include technical assessments and work simulations as well as group activities to hire an employee (Bowen et al., 1991). If principals continue to use interviews as their main tool for hiring they would benefit from using structured interviews designed to match the candidate to the requirements of the job, the goals of the school, and the needs of the students.

From this research we do not yet know how to assure that the hiring process selects for good fit in K-12 education. More studies are needed to determine how principals can use fit research to better make hiring decisions in order to provide students with the best education possible.

SECTION THREE: METHODOLOGY

With my capstone project, I examined how Beetlewood County elementary school principals decide on the hiring process in order to select teachers who fit their school and student needs. Principals leading BCPS elementary schools have a great deal of autonomy and the BCPS policy regarding hiring practices is short and provides little guidance. Thus, I studied the design of teacher selection and the principals' decision making process as related to hiring.

In this section I will first provide an overview of the conceptual framework for the study. I will expand on cumulative prospect theory as it relates to my capstone and will review the pertinent elements of person-organization (PO) fit. Then I will describe the research design to include an explanation of the research questions and methods.

Conceptual Framework

The conceptual framework of this study is a combination of decision making and employee fit based on existing evidence from research in K-12 education as well as that found in industry. Designing a process and then selecting a teacher to meet the needs of students and a unique community is based on a series of cumulative decisions. Principals identify and prioritize elements of PO fit, such as knowledge, skills, and abilities (KSAs), as well as attributes and goals, design a process to elicit evidence of these in candidates, and then select a final candidate from among those interviewed. The series of decisions made in designing and enacting a hiring process is best conceptualized by cumulative

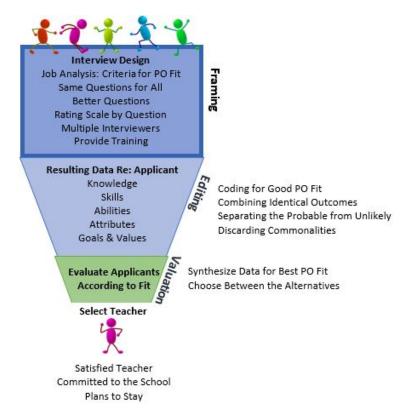


Figure 2. Capstone conceptual framework. An ideal model of principal hiring decisions during the teacher selection process.

prospect theory, a general theory about decision making, and PO fit, a theory that conceptualizes the compatibility between an employee and the organization in which she or he works. The main components of principal decision making about teacher hiring relate to PO fit. The elements of PO fit determine the design of the hiring process and therefore the framing of the decision, as well as how the data received from candidates are edited prior to valuation. Further, valuation is typically based on good PO fit. Elements of PO fit drive the decision making process and cumulative prospect theory may be used to describe how principals select a candidate with good PO fit (see Figure 2). As can be seen in Figure 2, principals could design the interview process to learn about each candidate's PO fit. The interview design frames the quality and type of data elicited from candidates. Principals estimate the probabilities of the data being accurate and then code and simplify all information gathered to prepare it for the valuation phase of the decision. During the valuation phase, the principal evaluates the applicant's merits against each other as well as PO fit criteria, synthesizes the data, and makes the final decision.

Hiring teachers is a risky and uncertain action. There is uncertainty in hiring even when the process is thorough and the most proven hiring tools are used effectively (Highhouse, 2008). Therefore, I am using Tversky and Kahneman's (1992) classic decision making theory, cumulative prospect theory, because their descriptive model addresses decisions that involve both risk and uncertainty. Uncertainty involves subjectivity on the part of the decision maker (Tversky & Kahneman, 1992). In order to reduce subjectivity, principals should use a structured interview process and base their decision on good PO fit, in other words, how the goals, values, attributes, and KSAs of the candidate match the needs of the school and the students (Kristof-Brown et al., 2005; Levashina et al., 2014). Therefore, both cumulative prospect theory and PO fit form the conceptual framework of my capstone. I describe the individual elements of the conceptual framework and how they inform my research in the following sections.

Decision making. Decision making research studies how people "combine desires (utilities, personal values, goals, ends, etc.) and beliefs (expectations, knowledge, means, etc.) to choose a course of action" (Hastie, 2001, pp. 655-656). A principal's

decision about which teacher to hire involves both risk and uncertainty. Trepel, Craig, and Poldrack (2005) name prospect theory, as conceptualized by Kahneman and Tversky (1979), "the most successful behavioral model of decision under risk" (p. 34). Cumulative prospect theory builds on prospect theory and is more reflective of the hiring process because it includes uncertainty in addition to risk. In this section I describe cumulative prospect theory and its merits related to teacher selection.

There are two phases in cumulative prospect theory and the outcome at the end is based on a series of decisions. The first phase is a framing and editing phase "where the decision maker constructs a representation of the acts, contingencies, and outcomes relevant to the decision" (Tversky & Kahneman, 1992, p. 299). How the information is framed, or presented, is critical to the end decision. This phase is also called the editing phase because a sequence of things occurs (Edwards, 1996). First, coding takes place where the decision maker sets a reference point used to measure all gains and losses. Second, the decision maker combines any possibilities that have identical outcomes. Third, the risky components are separated from the ones without risk. Finally, the components that are common to all prospects are discarded assuming that they don't help differentiate the choices.

Framing has multiple layers of meaning. Information in this stage is framed by the way it is presented. The hiring process design, or framing, affects the way that principals learn information and affects the outcome according to cumulative prospect theory. Different representations of the same prospects result in varied results, due to the perceptions of the decision maker (Kahneman & Tversky, 1979). Choices are influenced by the way that they are framed through reference point perceptions and the probabilities associated with them (Trepel et al., 2005). For example, people are more likely to take risks if there is a medium probability of losses and less likely to do so if there is a medium probability of an equal gain (Kahneman & Tversky, 1979; Trepel et al., 2005; Tversky & Kahneman, 1986).

During the first phase of the principal's decision, the principal takes in a representation of the prospects as they are framed (Trepel et al., 2005). Decision makers judge the probabilities of the prospects during the framing phase prior to editing, when they evaluate these judged probabilities during the valuation phase (Tversky & Kahneman, 1992). When the outcome is transparent, the decision is more likely to occur with objectivity. Yet hiring a teacher does not generally yield a transparent outcome. Uncertainty involves more subjectivity on the part of the decision maker, which is sometimes called professional judgement, or gut instinct, in the literature on teacher selection (DeArmond et al., 2010; Harris & Rutledge, 2010).

This first phase is called framing as well as editing because this is when the relevant information is organized and reformulated in order to simplify for the next phase (Kahneman & Tversky, 1979). During editing the perceived subpar options are discarded and the decision maker codes the data into gains and losses, combines things into similar categories in order to simplify and order things, and segregates the riskless components from the risky ones (Tversky & Kahneman, 1986). Then the decision maker discards the common constituents and simplifies the decision by discarding the unlikely choices

(Kahneman & Tversky, 1979). At the end of editing the data is sorted and categorized so that the decision maker can evaluate for the final choice more effectively.

The valuation phase occurs after the framing and editing phase. During valuation the decision maker assesses the value of each choice, or prospect, and then chooses the one with the highest perceived value, or dominant prospect (Kahneman & Tversky, 1979; Tversky & Kahneman, 1986; Tversky & Kahneman, 1992). The value of each outcome is evaluated from "choices between prospects as well as subjective probabilities" (Kahneman & Tversky, 1979, p. 282). Kahneman and Tversky (1979) assert that when making a choice people focus on differences and compare options rather than evaluating each prospect in isolation. Therefore, principals will compare candidates against each other for good fit as well as against their prioritized list of KSAs, attributes, and goals from the job analysis. In addition to these two phases, the outcome of uncertain prospects depends on the decision maker's experience and sophistication (Tversky & Kahneman, 1986) because the best choice may be masked by bias, a candidate's nerves, or a variety of other factors.

In summary, cumulative prospect theory is a useful lens for teacher selection because hiring a teacher is an inherently risky process and uncertain and principals make a series of decisions that affect the outcome whether they are aware of them or not. During the framing and editing phase, principal decisions about the design of the process affects how the information is presented (framed), which in turn influences the initial sorting and simplifying (editing) of the data provided by the teacher selection process. In the valuation phase that data is synthesized and used to make the final selection. Throughout this decision making process principals are judging candidates against each other based upon some set of criteria, explicit or implicit, for their school and students. I will discuss these criteria in the next section.

Person-organization fit. Principals in elementary schools often hire teachers for the needs of the school and its community of students rather than for a particular grade or class. Elementary school teachers must have the KSAs and attributes necessary to be assigned to teach in multiple grades. Student enrollment may change and the principal requires the flexibility to move teachers among grade levels. For these reasons, I have chosen PO fit (teacher's fit to school) instead of PJ fit (teacher's fit to a teaching job that requires their knowledge, skills, and abilities) as a focus of my research. Both PO fit and PJ fit have similarly high levels of correlation with job satisfaction, organizational commitment and lack of intent to quit (Harris & Rutledge, 2010; Kristof-Brown et al., 2005; Youngs et al., 2015).

As described in the previous chapter, optimum PO fit occurs when the teacher provides what the school needs and/or they share similar characteristics or goals (Kristof, 1996; Youngs et al., 2015). As a candidate moves through the teacher selection process principals are thought to be evaluating them according to how well they will fit the needs of the school and student community. This affects how the data are reduced and organized during the framing and editing phase, and determines the final candidate selection. The literature would suggest that fit is used as the criteria to measure each candidate against each other and their probable success at the school.

Good decision making is assumed to be informed by the principal's ability to both determine good fit and hire accordingly. There is a cumulative effect of the decisions that principals make in regards to the process design and the fit criteria with which to measure each candidate as well as the judgment they make about each candidate. The teacher selection literature mainly reports which teacher characteristics are important to principals with some description regarding the process used, but does not report on how principals design the process to look for the characteristics. I researched both the process design to hire teachers as well as the KSAs, goals, values, and attributes that principals use to choose a teacher they believe will be successful at their school. In the next subsection I provide the research questions and discuss how they dictated my research methods. I will then describe the research methods and why they were chosen. I will explain the selection of the sites and participants, my research bias or ethical concerns related to the research, and provide a description of the tools used to collect data. Finally, I will describe how I collected and analyzed data, and will discuss any threats to data quality.

Research Design

I conducted this research through a mixed methods design in order to best describe the principals' decision making process. The research methods will be described after the research questions are explained because the research questions drive which methods are most appropriate (Morse, 2010; Plano, Clark & Badiee, 2010).

Research Questions

I am very interested to know the elementary school principals' thought processes and purposefulness as they design a hiring process and decide which teacher best fits the needs of their school community. To explore this, I investigated the following research questions:

Central Research Question: How do principals make decisions about whom to hire?

Research Question 1: How do principals design the interview process to hire a teacher?

- a. What is the interview process that elementary principals use to decide upon whom to hire?
- b. How do they decide upon a process to use?
- c. In what ways do principals expect their process to identify knowledge, skills, abilities, attributes, and instructional goals of the candidates?

Research Question 2: How does the interview process used by elementary school principals compare with structured interview practices in industry?

The central question broadly asks how principals decide which teachers to hire and the sub research questions focus on different aspects of the process design as well as how the interview processes of these principals compare with structured interview practices in industry. Beetlewood County principals have autonomy in designing their own hiring process and research question one examines how they do it, what the resulting process looks like, and how it helps them learn the information necessary to eventually identify a teacher whom they hope will be successful in their school with their students. Sub-question 1a focuses on how the overall design of the process. Sub-question 1b examines how principals chose their process and sub-question 1c examines how principals expect their process to elicit information about each candidate in order to make their decision of whom to hire (PO fit). Research question 2 focuses on how BCPS elementary principals' interview design and practices compare with the elements of structured interviews in industry.

These research questions "dictate" the methods used to answer them (Plano Clark & Badiee, 2010, p. 278). I used a mixed methods design with quantitative methods such as prioritizing elements of a teacher hiring process as well as qualitative methods in order to describe the processes and the thinking of the elementary school principals. This mixed methods design will be discussed below.

Methods

Researching elementary school principals' decision making process for hiring teachers was done through both qualitative and quantitative means. A mixed methods design helped me to better understand the answers to the research questions through combining the strengths of both methodologies (Greene, Caracelli, & Graham, 1989). The purpose of my design was complementary because the quantitative and qualitative means both help report overlapping areas and assessment of each will provide a richer understanding of elements of the study (Greene et al., 1989). Some elements of the teacher hiring decision can be quantified such as ranking importance of elements of the hiring process as well as the number and type of hiring tools used, but there are many parts of the decision making process that required a qualitative approach. I surveyed elementary school principals to obtain quantitative information and also used semistructured interviews with six principals to learn more nuanced and descriptive decision making information. This will be discussed below, along with the site selection and description of the participants, the sources of data, and the data collection process and analysis.

Site Selection and Participants

I researched the selection practices of elementary principals in Beetlewood County where teacher hiring is almost entirely decentralized and is the responsibility of the principal at each school. I was particularly interested in elementary school principals because most of them are at least five year veterans at their school. Because of this, they have had more time to influence their school culture than the secondary principals who have fewer years of experience. At the time of my study there were three elementary principals with less than two years' experience; however, they were both assistant principals for at least 8 years and had hiring responsibilities during that time. Further, two of them were assistant principal at their current school prior to their promotion and one was a teacher at her current school. Thus, elementary principals were chosen instead of secondary principals with experience in their current schools.

There are 15 elementary schools in this district. Six of them are small, rural schools with an average of 265 students (ranging from 150-357). Five others are larger suburban schools with an average of 560 students (ranging from 430-752). Four of the

elementary schools in the district are in more urban communities. The schools in more urban communities have 511 students on average (ranging from 340 students to 669 students). Some of the schools within each geographic designation follow a more traditional model, while others incorporate practices such as multi-age classes, or world language immersion. All of this variability added to the richness of data collected through the process described below.

The six principals who I interviewed for this study led schools that are distinct from each other in size, setting, and socioeconomic level. They were selected in order to represent the diversity of schools in the district and in an attempt to observe variability in hiring practices. Due to the small sample and uniqueness of each school, I am not able to provide individual descriptions without also providing identifying information about principals. Instead, I broadly describe school demographics and settings and information about school principals.

Data Sources

I gathered data in three ways as shown in Table 7. The first source of data was through online structured surveys of principals in the 15 elementary schools. The surveys were anonymous. Another source of data was semi-structured interviews with six principals. I interviewed two principals from each geographical designation group and included both females and males. Due to the confidentiality concerns of a small sample size, I will describe the group as a whole instead of providing specific characteristics for schools or principals. Each principal has led their school for at least three years with most serving as principal for more than eight years. The schools in this sample represent the range of socioeconomic levels and student population sizes in the county. A list of nine principals were originally identified in consultation with staff from BCPS Human Resources Department to represent those who hire frequently enough to reflect practices. These principals were also selected based on years of experience in the county and their assumed adherence to policy. I contacted them personally and six of those nine agreed to be interviewed. The six principals that I interviewed also provided me with the interview instrument for the most recent teacher hiring process at their school.

Electronic survey. Principals received a link in an email to an electronic, webbased, survey using the website Qualtrics. A web-based survey was used because it provided flexibility in design, allowed for quick turn around time, and reduced the burden on the respondents because they only had to click on a link in an email to go to the survey (De Leeuw & Berzelak, 2016).

The survey link took them to a page with a short paragraph detailing the rights of the participants and the purpose of the survey. On the first page, and each page that follows, principals had the opportunity to opt out, or continue with the survey by clicking a link.

D O

				RQ
	Method	п	Mode of analysis	addressed
Survey	Quantitative	8	Descriptive statistics Comparative analysis among schools & to elements of structured interviews	1b, 1c, 2
Document analysis	Quantitative & Qualitative	6	Comparative analysis among schools & to elements of structured interviews	1c, 2
Interviews	Qualitative	6	Thematic coding Comparative analysis among schools & to elements of structured interviews	1a, 1b, 1c, 2

Table 7Data Collection Methods

The survey consisted of three sections. The first is regarding the process design and the components that principals used that would frame the resulting information about the candidate. The second section of the survey focused on the interview process, and the final section was a self-evaluation section to help determine how self-confident principals are about their hiring practices and resulting decisions.

The questions were developed through extracting information from my review of the literature on teacher hiring as well as proven practices in industry. Questions have been pretested in a variety of ways. Most of the survey questions have been cognitively tested for logic and structure (Willis, 2016) with students in an administration and supervision doctoral program. Staff in the BCPS Human Resources Department have reviewed the questions and provided revisions in order to more closely align the wording to that used within the school district. The questions were further refined for readability and clarity with Beetlewood County assistant principals who have hiring responsibilities through a pilot pretest in order to make adjustments (Willis, 2016). Survey questions were also refined through feedback from the Institutional Review Board for Social and Behavioral Sciences at the University of Virginia in order to protect principal identities. The questions for the survey are listed in Appendix C.

An email with a link to the surveys was sent to principals (see Appendix A) followed by a reminder a week later. Other email reminders were sent two weeks and five weeks later.

Principal interview instruments for teacher candidates. Documents can provide important information for research and are often underused (Butin, 2010). The

interview instruments used by principals represent an enacted decision making tool and provided valuable insights to their decision making process. I asked each BCPS elementary school principal who agreed to an interview to provide me with the documents that they used from their most recent teacher selection process. I specifically asked principals to send their interview questions along with any rubrics or rater tools used to evaluate candidates' interview answers. These interview documents provided another crucial piece of evidence in regards to the process design used by principals to decide which teacher to hire.

Semi-structured interviews. I conducted qualitative semi-structured interviews with six principals selected through the methods described above. I developed scripted questions that included follow-up questions. The semi-structured method was advantageous because all principals answered the same questions to reduce variability, and follow-up questions allowed for more elaboration and depth in their answers (Brenner, 2006). The interview questions were designed to be open-ended so that principal answers were not biased through directional prompts. Interview questions were also designed to learn more about all aspects of the principals' decision making process when they hire a teacher and can be seen in Appendix F.

Prior to beginning each interview, I asked each principal for permission to record the interview. I used the recording to transcribe each interview and then provided participating principals with their written transcript so that they could verify it for accuracy prior to publication of my findings.

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Data Collection Process

As this is a complementary design, data from the surveys, candidate interview instruments, and semi-structured interviews were collected concurrently. Each elementary principal received an email from Qualtrics with an anonymous link to the survey. Along with providing the anonymous link the email informed them about the survey and asked them to click on the link if they would be willing to participate. The email also contained the same informed consent information as was found on the first page of the Qualtrics survey program prior to answering any survey questions when they officially agreed to participate. On the Qualtrics survey the questions were divided into smaller groupings in order to simplify the process and decrease the cognitive burden on the principals (Smyth, 2016). Nine principals responded to the survey with eight of them completing it, but one of them opted out without providing any further information.

I also emailed six principals on the list for the interview portion of the study, and gave him or her a follow up phone call within a week, to set up a convenient time and place to interview him or her. One principal was unwilling to be interviewed, so I selected the next school on the list.

When I interviewed each principal I also requested a copy of their most recent interview tools for teacher selection and they all complied with either hard or electronic copies of documents containing interview questions. None of the principals provided me with documents for evaluating answers or procedural documents.

Data Analysis

The data analysis was completed separately for the survey, teacher candidate interview tool, and semi-structured interviews, although the information from each principal's semi-structured interview was compared with that of the document they provided. Each form of data was analyzed comparing it across the county as well as against proven practices in industry with a focus on internal validity in the evaluation design for reliable results. All data were analyzed through an iterative process of reading, focused reflection, writing, and rereading. This iterative process is recommended to reduce error in the results (Flick, 2014). The survey data was compiled into charts and was analyzed for trends. I also compared the survey, interview, and document results with hiring practices recommended by industry and with types of fit.

The teacher candidate interview tools were thematically coded for types of questions, length of interview, and according to the rating scales used by the principal, and other categories that arise. Thematically coding documents according to frequency of words or other characteristics helps to identify patterns that tell an important story (Flick, 2014). This coding was concept-driven based on the elements of interview structure from industry as well as data-driven as elements of PO fit (KSAs, attributes, values, and goals) as identified within the documents.

Interviews with principals were recorded and transcribed and then were coded for topical areas based on thematic analysis. As with the interview document analysis, the coding was both concept-driven according to elements of structured interviews as well as data-driven as process design, and PO fit elements are encountered in the transcripts. I followed Flick's qualitative content analysis steps of building a coding frame, segmentation (so that each unit fits into only one category), trial coding, and evaluating and modifying the coding frame prior to the main analysis (2014, p. 174). This helped to ensure that the coding categories are unidimensional, mutually exclusive, and exhaustive (Flick, 2014). I listened to each recording as I transcribed them and checked for accuracy. I started coding semi-structured interview transcripts only after each principal had at least two weeks to review theirs. I worked to ensure that the coding frames for both the document analysis and the interviews are reliable and valid by reviewing the data at least three times. The first time I coded the transcripts based on the research questions and elements of structured interviews. The second time I looked for elements of fit and looked to refine the categories from the first round of coding. The third time I reviewed the transcripts to ensure that the information coded was unidimensional, mutually exclusive, and exhaustive. I analyzed the interview documents for number of questions, type of question, question topic, and elements of fit. I also compared the information on the interview document (enacted practice) with the information that the principals shared with me during their interview (espoused practice).

After reviewing the data, I changed the order I answered my research questions. It became clear that there was less variation than I had anticipated in the results of this study. As a result, I reported on how these principals decided on the common process (RQ 1b), then described the mutual steps that they use for their hiring process (RQ 1a). Next, I compared their interview practices with the structured interview practices in industry (RQ 2), and then answered how BCPS elementary school principals expect to identify the elements of fit, namely knowledge, skills, abilities, attributes, instructional goals, and professional values (RQ 1c).

Research Ethics

I conducted this research in an ethical manner according to established principles. In doing so I minimized risk of harm, obtained consent from all participants, provided opportunities for them to withdraw, protected the anonymity of those involved, and avoided any deceptive practices in my research. I acquired informed consent prior to recording interviews and provided principals the transcripts of their interview prior to analysis.

Hiring teachers is a high-risk process and I worked to protect principal identities in this small sample study. In order to do so, I maintained all of the semi-structured interview transcript data in a password protected electronic file and used pseudonyms for all principals and schools. Each of the six principals and corresponding schools is labeled A through F in my findings and discussion in order to ascribe each principal's remarks to their school document, but they are not otherwise identified. I do not describe individual principals in ways that could identify them. Additionally, as each school in this district is unique, I do not describe individual schools or attribute characteristics to a named school. Instead, I describe the sample of schools along with the principals from which I obtained data.

Researcher Bias

Qualitative research is inherently subjective and it is important that researchers acknowledge their assumptions and personal connections to the work (Toma, 2011). I

know the principals in this district and have previously worked with some of them. I had heard that hiring decisions have primarily occurred according to professional judgement, or gut instinct, because the process has all too often been shallow and brief. Thus, my bias was that principals would not use a thorough process and would make subjective decisions. However, I hoped to uncover thoughtful and purposeful decision making practices to help improve hiring practices throughout BCPS.

In order to control for this bias, I have used a research design that reduces bias. Interview protocols are semi-structured and outline a clear set of interview questions that helped to eliminate leading questions and my bias as a researcher. I strove to reduce bias and pursue objectivity in the data analysis as well as during the semi-structured interviews. I also used critical friends to look at my interpretations of the data in order to root out prejudices that might arise.

Summary

This capstone project researched the decision making process used by BCPS principals to hire teachers who fit the needs of their school and community. Specifically, I researched how principals, with almost complete autonomy and little direction, design the process for selecting teachers, the type of information yielded from their process, and how they prioritize the criteria to make their final decision. The data that I collected and analyzed through this research will be provided to BCPS leaders, including the elementary school principals, and human resource leaders to inform and potentially improve future practice.

SECTION FOUR: POSITION PAPER

Placing well-qualified teachers in each classroom is central to the mission of public schools and it is important that principals use effective processes to do this. It may take on an added importance in a district like Beetlewood County Public Schools, where each principal is empowered to design her or his own process. The assumption underlying my research was that each principal designs a process specific to their school needs and that future practice will be improved as this information about these varied practices is shared among BCPS principals and BCPS Human Resource Department leaders. The results of this study will also inform leaders of BCPS Human Resource Department regarding current practices of elementary school principals, thus they will know in what ways principals need support and guidance. The district's objective is for principals to select the best possible candidate in a fair and legal way⁴ and knowing current practices will help them in this objective.

My Capstone research examines teacher selection processes and how elementary school principals expect their process to result in identifying desired knowledge, skills, abilities, attributes and instructional goals of the candidates in order for principals to make an informed decision. Beetlewood County elementary principals answered survey questions, which provided quantitative data, and six elementary principals provided qualitative data through interviews. The interviewed principals also gave me their

⁴ Beetlewood County Public Schools- GCD. (2015).

teacher candidate interview documents, which I analyzed. After reviewing the hiring processes of principals, I compare the survey, interview, and document results to structured interview practices in industry as well as types of fit. In this section of my capstone, I will share findings from my analysis of the data collected through the methods I described in Section Three.

Findings

I began this study to learn about the decisions that BCPS elementary school principals make in regards to hiring, and I held an assumption that there would be variability among different schools' teacher hiring processes. As I report in these findings, my research led me to identify much greater consistency in major elements of the process than anticipated among principals' overall processes of teacher hiring. This overarching finding of consistency leads me to answer my research questions in a different order than initially proposed. I will first explain how principals came to this common process (RQ 1b) and then describe the teacher selection process as typically used by BCPS principals to broadly answer the research question, "What is the interview process that elementary principals use to decide who to hire?" (RO 1a). I will then follow the flow of my conceptual framework to detail the minor differences in principals' processes as I compare the interview process used by BCPS principals with the seven most studied structured interview practices in industry (RQ 2). Finally, I will report how principals expect to identify a candidate with good fit. To describe good fit I will use the terms from industrial and organizational psychology research, such as KSAs, attributes, values, and professional and instructional goals (RQ 1c). Initially I was going to assess

only the hiring processes after screening candidates to select for interviews. When it became clear during my conversations with principals that screening informed the rest of their decisions, I decided to include information about screening, which is found in the initial section about common process, in response to RQ 1b as well as RQ 1a in the section below.

Convergence on a Process

The six principals who were interviewed for this study are at schools that are distinct from each other in size, setting, and socioeconomic level. All five principals who follow a common model, however, designed their teacher selection process based on what they learned prior to becoming principals. Three of the principals (Principals C, E, and F) usually follow the process that their mentors or supervising principals followed, and two (Principals B and D) said that they learned about the process that they follow when they were in graduate school. All six principals indicated in the interviews that they have "fine-tuned" their interview questions over time, but have made very few modifications to the selection process. In fact, four of the interviewed principals (Principals B, C, E, and F) said they have not made changes to the structure of their process over the past five years. They said they have learned more about good teaching which has resulted in improved interview questions over time due to that increased knowledge. They also indicated that they ask more probing questions and listen for different indicators than they did five years ago, but they still use the same elements and process configuration for teacher selection.

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		R	Reason for discarding	
<i>N</i> = 8	Number of principals who once used	Not helpful	Took too much time	Replaced with something better
Lesson presentation	5	-	4	-
Writing sample	4	3		1
Lesson critique	3	1	1	1
Portfolio	1	1	-	-

Table 8Survey Results of Discarded Teacher Selection Elements

Note. Not all survey respondents indicated why they discarded each element

Principals who responded to the survey, more so than those who were interviewed, indicated that they have used selection tools in the past that they dropped because they took too much time, were not helpful, or were replaced by something better, as can be seen in Table 8. Full survey results can be seen in Appendix G.

The data in Table 8 represent information from two questions on the survey. Principals were asked to identify which selection element, if any, that they previously used and then provide their reason for discarding it. Four of the eight principals surveyed used writing samples at one time, but three found them to be unhelpful and one replaced it with something better. Of the eight principals surveyed, five asked candidates to present a lesson in the past. Four of those five indicated that they stopped because it took too much time and the fifth did not mark a reason for changing their process.

Only two of the interviewed principals, Principals B and C, indicated that they had used another tool, whereas at least five principals responding to the survey had used lesson presentation and dropped it. The two principals who told me they only asked candidates to demonstrate teaching one time said that it proved valuable; however, it added too much time to the process. The principal of School C said, "[I]n a perfect world, and I've only been able to follow through with it once, I really want to see people teach." Both of the interviewed principals who indicated that they had dropped lesson presentation from their hiring process expressed concern that they would lose candidates to other schools where principals have a faster process. Principal B expressed her concern this way:

You really have to play your cards carefully when you want to add that lesson presentation because you are losing time and everybody is competing and trying to grab a person. So, if they are really good and really stand out then they tend to get picked up quick.

Three of the six principals in their interview with me (Principals B, C, and D) indicated that time to complete teacher selection matters in this school district because they sometimes lost qualified candidates to other principals who were able to select teachers more quickly.

Based on the data, the principals in my study design their process according to what they are familiar with and discard elements that are not helpful or are perceived to take up too much time. Even though some principals have used an array of teacher selection tools at one time, based on the results of my study they have converged on a common process that will be identified below.

Although the principals in this district could develop their own unique process, five of the six principals interviewed (excluding Principal A) have converged on the same general format for hiring teachers. Their process is to ask teachers on the team with the opening for input in regards to candidate criteria, then screen by looking at candidate applications and scores on a screening interview, as well as résumés. Then these five principals evaluate their interview questions to see if they meet the criteria for the teacher opening and use a panel (trained on legalities) to interview the candidates who were chosen through the screening process. At the end of the interviews they discuss the merits of each candidate with those who were helping to interview. The principal then typically makes the decision of whom to recommend to hire. The principal subsequently calls references for the person they would like to hire.

The six principals interviewed discussed the importance of checking references because former supervisors can speak to authentic experiences with the candidates. These six principals are wary of receiving misinformation during a reference check, but feel that they have been able to discern dishonesty when it occurred. If they are satisfied with the reference check, they recommend the candidate to the human resources department. When they receive approval, they call the applicant and offer the job. The principals who responded to the survey, as well as those whom I interviewed, use the same major steps to hire a teacher.

I describe the commonalities and differences in the screening processes next.

Screening commonalities. Screening was originally outside of the scope of my research because I assumed that there would be little variation among principals due to a centralized software program that is used by all principals. Interviews with principals led me to understand that the screening data plays a significant role in informing decisions that principals make about their interview design and questions. This finding is relevant to my overarching concern around selection process because I am interested in the

cumulative decisions that principals make prior to recommending a candidate to hire. I learned that during their screening process principals prioritize different information from each other on screening as well as during their subsequent hiring processes.

All six of the principals interviewed value the screening process done by the human resources department and use that information to narrow the field of candidates to decide whom to interview. In order to be considered for a school interview all applicants must provide information about their education, employment history, job skills, licensure, references, and write essay-type responses to questions asking how they will build relationships with students and how they will meet the needs of all students in a diverse classroom. Candidates are also required to provide a résumé and cover letter. Staff from the human resources department provide a score from a screening interview and recommend that principals interview only those who receive at least a three out of five possible points. All six of the principals interviewed described their screening process as looking at screening interview scores first, and then either the applications or résumés. The six principals interviewed use information from the application, résumé, and written references to decide which candidates they invite to interview.

Screening differences. While most of the screening process is the same for all six of the principals interviewed, there are some differences. Principal A will only interview candidates who have experience in a Title 1 school or who have two or more certifications. This principal said that this requirement set the "caliber a little bit higher," but other principals did not require this level of credentialing even if they are at a Title 1 school. Only one other principal, Principal D, even mentioned credentials during their

interview. Five of the interviewed principals said that résumés were an important part of their process, but one principal, Principal E, did not talk about résumés at any point during our conversation.

There was also variation in regards to the importance of a writing sample. This school district added the writing component to the application process after this study had already begun, but before I interviewed principals. One of the six principals interviewed (Principal A) mentioned that she uses this as part of their screening process, and she found it to be valuable in helping to decide whom to interview. A similarly small proportion of survey respondents (two of eight) indicated that they use writing samples during their process.

As noted earlier, the principals whom I interviewed follow the same major steps to hire teachers. While two of my interviewees (Principal B and C) along with at least five of the survey respondents have tried other elements, they have discarded them and now use screening, interviewing, and then reference checking in order to decide whom to hire. As the interview process follows screening, I will next compare the practices of the BCPS principals in my study with structured interview practices.

Teacher Candidate Interviews

In this section, I detail findings to answer how the teacher candidate interviews as designed by principals in my study compare with structured interview practices in industry (RQ 2). This section will also answer RQ 1a in more detailed way than the section above. I present findings about components of the design of the interview process using the flow described in my conceptual framework, which traces the cumulative decisions that are made leading towards selecting a candidate. As detailed in the literature I reviewed on structured interviews, the interview process consists of some practices that occur prior to teaching candidates' arrival to answer questions. The information below includes what these six principals did to prepare for the candidate interview, the interview itself, and how the information gained from the interview is processed. The findings reported here are primarily from the semi-structured interviews but include information from the survey as well, as indicated below.

All eight survey respondents, along with the six principals interviewed, use some form of interview to determine whom to hire. Principals said that they value interactions in interviews because interviews help differentiate who is able to "think on their feet" (Principal D), and principals learn how candidates might think outside of the box or evaluate a situation and make a plan to respond to it.

The five principals who have converged on the same general method, as noted above (Principals B, C, D, E, and F), have prepared questions that they share with others on the interview team. All eight of the survey respondents indicated that the interview was "very important" in their hiring process and interviews are the most important part of the hiring process according to all of the principals interviewed. Principal D described it this way:

Teaching is basically what the interview world is, you need to be interacting with people, you need to be kind, you need to be making eye contact, you need to be able to think on your feet. That's teaching. And so people who don't interview well makes me wonder if they're gonna teach well. I rely on phases from my conceptual framework to organize this report of findings about the teacher hiring interview process below. The first phase includes two components: framing (process design) and editing (initial candidate evaluation). These are followed by the valuation phase when all of the previously gathered information is assessed and a final decision is made. The findings reported below are organized by framing, editing and valuation. Cumulative decisions occur under each of these main components, and the questions asked in the survey and semi-structured interview were designed to ascertain these decisions.

Framing the interview. The framing, or process design, occurs prior to the interview with the candidate. This part of the teacher selection process helps to determine the type and quality of information obtained during the interview process. There are four components of a structured interview that fit into this phase: job analysis, writing better types of questions, using the same questions for all applicants, and training interviewers. All of these components work together to produce information that is eventually used as part of the final decision.

Job analysis. The first structured interview component in framing is the job analysis. I interviewed six BCPS principals to find out what type of job analysis they performed, if any. These principals executed a job analysis in a variety of ways. Two of the six principals (Principals B and E) always ask teachers for input prior to the interviews. Five of the principals (all but Principal F) explicitly stated that they now ask teachers what they think their team needs and consider this input as they think about the criteria that he or she will look for in a well-qualified candidate. Principals A, C, D, and F stated that when they were initially at their building they did not solicit input from teachers because these principals had not yet determined if faculty shared their philosophy and did not feel they knew the staff well enough to trust the accuracy of the information that they shared. Principal A says that she now asks for input "because our teams are at a higher working caliber [than before] so I think that they have a really good sense of [what we should look for]."

In addition to sometimes including teachers in analyzing needs, or the look fors, each principal said that they think about what the grade level team needs based on current skill sets, strengths, and gaps. They analyze needs according to what they have observed in their interactions with teacher teams and students. None of the principals described an in-depth analysis in order to identify KSAs, attributes, and/or professional values that they would want in a successful candidate, but they touched on them during our conversations.

All of the principals I spoke with do an informal job analysis in their head as they "think about" what is needed for the position and then they move forward with the rest of the process. For example, Principal F realized the importance of students seeing others who look like them in the building while doing their "thinking" job analysis. This guided his decisions even though he finds the best candidate regardless of ethnicity, gender, or race. Another principal, Principal E, asks teachers what their hopes and dreams are in a teammate and what they think would balance their team. A different principal, Principal A, said she asks teachers, "What are your strengths and what are you looking for [in a candidate]?" These types of questions appear to make up much of the job analysis outside of the principal thinking about needs. The job analysis informs the questions that are used in the interview with candidates. The types of questions used in a structured interview will be discussed next.

Better questions. Most of the questions mentioned in the semi-structured interviews with principals, as well as those found on the principals' interview documents, are related to the job and are one of the three types that provide information predictive of good fit. These three types are questions designed to solicit their level of experience (experience-based: EBQ), those which ask about how they would react to a hypothetical situation (situational: SQ), or questions that ask what they have done in past situation (past-behavioral: PBQ) as described in the research. Similarly, the respondents to the survey indicated that the majority of their questions are those about past behavior or a hypothetical situation. I describe these data about types of questions used in teacher interviews below.

There were some common categories of questions among schools' interview documents. Five (all but School E) asked candidates to describe a lesson or explain how they would teach a lesson and what the principal would see if they walked in. Four of the six schools, A, C, E, and F, had a question on the interview document asking the candidate to share their background and related experiences. Four documents (all but B and E) ended the interview soliciting questions from the candidate or encouraging candidates to share additional information. Documents from School A, C, E, and F asked questions regarding collaborating with colleagues. Three schools, A, B, and C, asked a question that required candidates to describe their strengths and/or areas of growth. Three documents (C, D, and F) had the candidate talk about an experience with failure. Three of the documents (C, D, and E) had questions about how the candidate has/would differentiate in mixed ability classrooms. Three of the schools (A, B, and D) had a question asking why the candidate specifically chose to apply to their school.

The majority of the questions mentioned during the semi-structured interviews were in the three categories that are used to connect the job analysis to the interview. EBQs were mentioned six times, PBQs twelve times, SQs nine times. Six of the survey respondents indicated that they ask about the same amount of questions that require a candidate to talk about their experiences as a teacher (what they have done in a given situation) or PBQ, and those that require them to talk about their ideal in a situation (what they would do) or SQ. As can be seen in Table 9, the majority of the questions on the interview documents that principals provided from their last teacher hiring process were also in these three categories. The document from Principal D had the highest percentage of questions that did not fit into one of the three categories, even though most of her questions were in one of the three categories of better types of questions.

		Experience-		Past-	
	Total # of	based	Situational	behavioral	
School	questions	questions	questions	questions	Other
А	9	22%	33%	22%	22%
В	10	20%	30%	30%	20%
С	12	16%	8%	42%	33%
D	11	9%	27%	27%	36%
E	10	30%	50%	20%	0%
F	18	28%	33%	28%	11%
Average	12	21%	30%	29%	20%

Table 9

As I have discussed previously, there are common categories of question topics. These common topics are asked in different ways and sometimes fall into different question types. The most common EBQ on the interview documents was a form of, "Share your relevant background and educational experience and why you are well-suited for this position." Four of the six principals (A, C, E, and F) asked a variant of this question and they were all EBQs. Five of the six principals (all but E) had at least one question regarding how the candidate would or has planned and taught a lesson. There were seven total variants of this question, and principals asked them both hypothetically (SQ) and what they had done in the past (PBQ). The variants of this question were the most common PBQs and SQs. Of the questions about planning a lesson, two principals, (A and D), wrote them as SQs (three variants) and three (B, C, and F) as PBQs (four variants).

Several questions for candidates that do not fit in the three categories describing better types of questions were mentioned in the semi-structured interviews, and 14 of 70 questions on the interview documents were this other type. Only two surveyed principals indicated that they generally ask other types of questions, but only one described what they meant by "other types of questions". This principal wrote that they are "listening for how a child will describe them as a teacher, their lessons, and their philosophy". This question does not fit into one of the three categories above, but one can see how it might yield useful information to an interview team. Similarly, questions in the "other" category from the interview documents have value. For example, the question, "What are your core beliefs?" would help Principal C know if the candidate's values align with their school. The question, "Why do you want to teach at our school?" is helpful to determine if the candidate has done any research about the school they are applying to teach in. When principals ask, "What else would you like to share?" and, "What questions do you have for us?" they may learn more about the candidate's values, motivation, skills, and/or depth of interest than if they failed to ask such an open ended question.

When asked what their most useful question was, all but one of the six principals I spoke with named several questions. They were not able to narrow it down to just one, which indicates that they believe several are high quality. All but two of the fourteen questions identified by principals as the most valuable were one of these three better types. Principals A, B, and C had a common question that they most valued asking the candidate to identify areas of strength and growth (EBQ). Principals D and E most valued an SQ asking candidates to describe how they would teach a specific subject in a hypothetical class.

While most questions qualified as "better questions" through the three categories described in the literature, the quality of questions varied between schools. Two of the schools had questions that required only a few words to answer them, but the questions were about experience so they qualified as EBQs. One example of such a question is, "You will have to coordinate _____ program. What experience do you have with it?" (School E). On the other hand, some of the schools had questions that seemed to require critical thinking and detailed answers such as, "What types of interdisciplinary teaching have you done? Describe some projects that you developed or would develop that incorporated other disciplines or planning with teachers" (School F).

Same questions. The vast majority of principals that participated in my research use the same questions for each candidate. All of the principals responding to the survey use the same questions for each candidate, however one of them indicated that they do two rounds of interviews, and in one round they use the same questions for all and in another round they do not. Similarly, all but one of the principals interviewed (Principal A) said that each candidate for a given position answers the same questions.

In the interviews, I learned of two principals who use questions differently than the others. In addition to using the same questions for all candidates, Principal F provides the candidates with two or three of the questions prior to the interview so that candidates have time to plan and prepare. This principal describes himself as a bad interviewee and believes that receiving some questions ahead of time puts the candidate more at ease. He said that providing questions ahead of time helps eliminate the "unskilled" and "those who don't put in time to prepare." One of the interview documents (School B) had a final question that was explicitly different for veterans than for novices, otherwise all documents indicated that the same questions are asked of all candidates.

The principal who told me that she does not typically have standardized questions, Principal A, usually interviews one-on-one with candidates. This principal tells each candidate about one aspect of her school and then asks the candidate to respond. Once the candidate has responded, the cycle is repeated until the principal feels she has enough information. She said she wants to hear about the candidate's philosophy and approach to teaching to determine if the candidate is a good fit and changes questions based on answers given. One year she had to hire a large number of teachers in a small amount of time so she created something that she recognizes is akin to speed dating. In this process teachers sat in a circle in a large open room and talked with each candidate for about seven minutes and then the candidate rotated to the next teacher or pair of teachers. Candidates were told ahead of time about the format so that they came prepared to be seen by others and to experience something nontraditional. Each individual or pair of teachers had a targeted topic to discuss with each candidate, but not standardized questions, and they kept notes and impressions on a shared document so that interviewers could see each other's results. At some point during the process, the principal talked one on one with each candidate. This principal described the "speed dating" process as useful as well as "kinda fun" and "casual."

Training interviewers. All of the BCPS elementary school principals interviewed for this study train others who participate in the interview process. The training they provide focuses primarily on legalities and policy. Four of the six principals (B, C, D, and F) interviewed also train interview team members on the importance of not talking in between interviews and "sticking with the script" both of which are lesser-studied components of interview structure and serve to reinforce the component of using the same questions (Campion et al., 1997). Interestingly, Principal F makes it a point not to share look fors with the interview team. He feels that if he communicates what he is looking for in a candidate it will bias the interview team and perhaps make them feel insecure. He said:

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I don't want to bias people against something because of what I think, even though I'm maybe looking for those things. There may be a candidate that comes in with a whole lot of different attributes that I would just say, yeah, you're just great and I'm going to hire you ... And I also recognize that certain things are hard to have conversations about and people misinterpret what you're looking for. They may feel like it's saying something about them. It's not what it's saying at all. So I usually don't.

Four of the six principals (B, C, D, and E), however said that they shared look fors with the interview team to make sure that members of the team could identify the same qualities of a successful candidate as the principal.

The principals I interviewed perform a job analysis by talking with teachers about what is needed for a successful candidate and thinking about what they should look for based on their observations and professional judgment. The majority of the questions that the principals in this study use based on the survey, their interview documents, and our semi-structured interviews are among the better types of questions. The vast majority of them typically use the same questions for each candidate, but two on the survey indicated that they do not use the same questions during one of the rounds of interviews, if they do two rounds. During our interview, Principal A said she rarely uses the same questions with all candidates. According to my semi-structured interviews, all of the principals who include other staff on the interview team provide them with some type of training which typically focuses on legalities. In other words, most of the principals in

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my study include the elements of structure (in varying degrees) that incorporate the framing phase.

Editing the interview. The second part of phase one of the structured interview processes is editing, which is when the decision maker gathers, sorts, and prioritizes information prior to making the final decision. The editing phase of the teacher selection process includes rating each answer, using anchored rating scales and having multiple interviewers. All of this helps to sort and prioritize teacher candidate information and leads to the valuation phase. The last three components of a structured interview contribute to editing namely, rating each answer, using anchored rating scales, and including multiple interviewers.

Rating of each answer. Based on my research, BCPS elementary principals do not individually rate each answer of an interview. Only two of the eight principals who responded to the survey indicated that they consistently rate each question separately. Additionally, one principal indicated that they do two rounds of interviews with each qualified candidate and that they rate each question in one round of interviews and in another round they evaluate holistically. Five of the eight respondents always evaluate holistically by using their professional judgment at the end instead of using numerical scores.

None of the interviewed principals rate each answer of a teacher candidate interview, although two of the six (B and F) indicated that their teachers sometimes do. Interestingly, two of the interview documents have a space for a rating score. One principal, Principal D, summarized the common sentiment when he said, "I've never found any value in writing scores and numbers and stuff. And at the end of the day it's just a, it's a feeling."

Two principals (E and F) who said that they used to rate each answer, but felt it impeded their ability to deeply listen to candidates. Those who once scored each question felt that they achieved the same results without doing it and they prefer using their professional judgement instead of a defined score. Principal E said she used to score for each question with her interview team, but "after a while the scoring seemed to almost hinder our conversations and so I stopped using the scoring." The two who used to score now take few notes in order to pay closer attention to the conversation and then use professional judgment at the end of the interviews to evaluate each candidate against the others.

Using anchored rating scales. Just as principals do not rate each answer, no principals interviewed use anchored rating scales. Principal D said that he has a "definition of success for each question", but he did not provide any documentation of this. In regards to his definition for success he said:

If they don't account for in this, in this made up class [of] four ESOL kids, the seven kids in poverty, the two gifted kids, [etc]. If they don't account for those learning styles and needs in their answer, that's a concern for us.

None of the interview documents had evidence of anchored rating scales, definitions of success, or written look fors for any of the questions, and no rating documents were provided by any principal.

Including multiple interviewers. All but one of the principals in this study typically include others in the interview process. Most often it is teachers, but some principals include assistant principals and/or central office staff. All eight of the survey responders include teachers to help interview and six of them include assistant principals. Five of the six principals interviewed (all but A) typically include others in the interview process. All but one of the principals who have assistant principals typically include them. Four principals (B, D, E, and F) usually include teachers on the interview panel, and one (C) includes her assistant principal and a central office staff member. She explained why she does not include teachers this way, "What I learned from interviewing is that it is human nature that you try to find people who are like you and that's not always what is best for the team or the vision of the school." Three other principals (B, D, and F) expressed this sentiment but they still include teachers on the panel.

Two of the six principals interviewed (D and F) did not include teachers the first year they were at their school. They said they did not yet know their teachers' philosophy or work well enough to trust their judgment, but they include teachers on the interview team now. One of these principals, Principal D, also now includes front office staff from their school as well as the custodian. These staff members are not involved in the formal interview, but their feedback is solicited and valued.

I'll send our secretaries, our custodian and our nurse [names of candidates] the day before or the morning of ... and then they are to interact and take notes on them and bring them in the end of the day. ... because if [candidates] are not

going to be nice to the people who run the school then we're not going to have them.

One principal, Principal A, rarely uses a panel and interviews alone because it "feels too formal" and people are too focused on taking notes instead of interacting with the candidate. She remarked, "I just want it to feel comfortable because I feel like that is when you get the person's best."

All eight of the survey respondents listen to opinions of those on the interview team prior to making their decision. Each of the six principals interviewed also indicated that they solicit feedback from people on the interview team regarding the candidates, when others are involved in the interview process. All but one (A) spoke about the importance of hearing diverse perspectives to better inform the decision. The principal who did not mention this is the one who typically interviews alone. Two of the six principals (D and F) said that they do not speak at all during the interview team's conversations about candidates. These two remain silent because of the belief that anything they say might stifle other's opinions in some way and they want people to speak freely in order to get the diverse perspectives.

Two principals (D and F) recognized the impulse to look for someone like themselves and purposefully planned for parts of the process to account for that (e.g. not speaking while the interview team discusses the candidates). Principal D said, "I've put a lot of roadblocks in on me for checks and balances to me." One of the roadblocks is inviting an administrator to the discussion who has not heard any of the candidates. This administrator asks clarifying questions during the team's discussion and provides a dissenting voice. This principal said he feels that this added layer helps to avoid a situation where the group becomes blinded to negative indicators in a candidate with whom they have become enamored.

According to the information I learned from the semi-structured interviews, the principals studied do not use all of the elements in the editing phase. These principals do not rate each answer nor do they use anchored rating scales. All principals who responded to the survey, and all but one of those interviewed, however typically include multiple interviewers as part of their teacher selection process.

Valuation of fit. The final phase of cumulative decisions is the valuation phase. Valuation is when the principal assesses all of the previous information and decides which candidate, if any, has good fit. The information in this section answers my research question regarding elements that make up good fit such as KSAs and professional goals and attributes (RQ 1c). Within the broader umbrella of personenvironment fit, I predicted that these elementary school principals would look for good person-organization fit. I found, however, that principals made remarks related to personjob fit, person-group fit, and person-supervisor fit so I will discuss the findings around each type of fit in turn. The questions used during the teacher candidate interview combined with what the principals are listening for indicate what type of fit is most important to a principal.

As noted in the literature, good PO or PJ fit results in the positive outcomes of satisfaction, organizational commitment, and intent to quit (Chatman, 1989; Kristof-Brown, Zimmerman, & Johnson, 2005). BCPS principals who completed the survey

Slightly Moderately Very important important important How important for you is it to select teachers who: enjoy working at our school? 8 are committed to the teaching profession? 7 1 are committed to the goals of the school? 8 _ intend to teach at this school for more than 5 years? 2 4 2 effectively teach all children? 8

Table 10Importance of Fit Outcomes to Principals

Note. "Not at all important" was also an option but was not marked.

indicated that they value these outcomes of good fit. As can be seen in Table 10, all eight principals indicated that it is "very important" to them that the teachers they hire enjoy working at their school, are committed to school goals, and effectively teach all children. Seven of eight also ranked "committed to the teaching profession" as "very important" while the other one ranked it as "moderately important". It was very important to all six of the interviewed principals to find teachers who enjoy working at their specific school and with their students, and are committed to the goals of the school and the teaching profession. All six would also like their hires to stay at their school, but each of them stated that it was more important to get the best qualified teacher than to have a less qualified teacher who stayed a long time.

Person-organization fit. In the semi-structured interviews all six principals discussed the importance of candidates meeting the needs of their school or matching school goals along with having the skills necessary to teach their students well, which is PO fit. The value that principals place on this information was reflected in the interview documents which all had questions about professional values and goals. The document from School A stated a goal question this way, "Share your vision of the ideal school and

your role in supporting this." Principal B, during the semi-structured interview included both the KSAs and values that make up PO fit when she said that she bases her decision according to how well a skilled candidate seems to be in line with school goals and district vision. Two principals, Principal B and Principal F, indicated the importance of elements that make up PO fit when they identified their most useful questions as those providing insight into a candidate's knowledge of practices important to the school and district as well as if they are student centered versus adult centered. One principal, Principal E, said, "Usually that tells me right away whether this person has or doesn't have what I'm looking for with regards to their knowledge and how they structure literacy instruction and how that aligns with how we do it." This shows that this principal values PO fit because the comment not only addresses the candidate's professional knowledge, but also whether they use that knowledge in their practice in a way that matches the philosophy of the school.

One principal, Principal D, explicitly said that he is mainly looking for soft skills during the interview because he feels that the screening process is all that he needs to identify candidates who exhibit the technical aspects of the job. Nonetheless, three out of ten interview questions on the interview document used by his school asked about KSAs. School F that had double the number of value/goal questions as questions on KSAs still asked five questions about KSAs and also required candidates to bring in something that "reflects the type of teacher you are" through demonstrating or highlighting a lesson during the interview. All six principals had many comments about KSAs in relation to their school during their interview with me, but one principal, Principal A, moved all the way in her priorities toward attributes and alignment with her school in regards to PO fit versus KSAs expressing it this way:

I feel like if they have positive attributes then I can teach the skill. I can teach them how to be a better literacy teacher, but I can't teach them how to believe that all kids can learn. I can say I want you to, but I want to be able to hear that belief system out of there. I mean I can teach you any skill, but I can't teach you how to be humble and gracious and thoughtful.

In this quote the principal is emphasizing how important it is for candidates to demonstrate qualities that match with her school values. She feels that successful teachers at her school are those who believe that all students are smart and capable even if the teacher has weaker teaching skills than others who have lower expectations for students. It also demonstrates her priority towards those who demonstrate some of the personal characteristics important in other teacher selection studies (e.g. Harris et al., 2010; Ingle et al., 2011; Supon & Ryland, 2010).

Person-job fit. All six principals also talked about the importance of knowledge, skills, and abilities in finding a qualified candidate and at least one third of the questions on all school documents were specific to KSAs. When mention of these job-related technical skills occurred with no connection to the school, the team, or the supervisor it was marked as person-job (PJ) fit. Two principals (C and F) stated that they look for generalists who have the ability to change grade levels, which exemplifies PJ fit. These

principals are looking for someone with the technical skills necessary to be able to teach children at different academic and developmental levels within the same school. Principal A said, "What do you do when a child is not doing what you need them to do? How do you handle that? How do you keep your cool and handle that?" This quote illustrates her emphasis on the importance of a candidate's ability to effectively motivate and manage student behavior. Another principal (D) indicated that the teaching candidate needs to have the KSAs necessary to differentiate while effectively teaching a challenging part of the curriculum in this interview question:

Here's this group of kids with the SPED and ESOL and whatever in it and you need to teach division knowing that this is the profile of your class. Talk to me about how you are going to teach division to this group of kids.

Perhaps the clearest example of a PJ fit statement is also from Principal D, "I hire for lots of different reasons, but I make sure that we get the technical knowledge and when I don't have that I find it." Here he is discussing the KSAs of a teacher as a whole while the first example broadly targets classroom management and culture, and the second is about pedagogy.

Person-group fit. All six principals I interviewed also spoke about the importance of candidates meeting the needs of, and fitting well with, the assigned team, or person-group (PG) fit and each school had at least one question related to group dynamics or collaboration. One, Principal A, said this in our conversation vis-à-vis complementary PG fit, "[the team] has a reading specialist and someone who knows English language learners, but we really need someone who knows math." This principal

recognized a gap in the team and was looking for a candidate to fill that gap. Similarly Principal D commented, "I might say, okay, what you guys need right now is somebody with one to three years of experience to give you some new ideas." Principals also discussed the importance of a candidate's ability to collaborate with the members of an existing team, but most of their PG fit comments were complementary in nature.

Person-supervisor fit. Only two of the six principals (D and F) mentioned anything related to person supervisor (PS) fit. In both cases the principal was referring to complementary fit. They identified the need to find people to add to their staff who were not like them and would not particularly answer interview questions the way the principal would. Principal F said, "I've learned not to look for people who answered the way I would answer, but to look for people who answered in multiple ways." Principal D talked about the checks and balances that are in place to help prevent him from looking for people like him. None of the six principals interviewed talked about the importance of candidates matching their professional goals or attributes as a supervisor.

In the valuation phase principals assess all of the elements of fit and other information obtained during the interview process. Five of those interviewed (all but E) explicitly stated that they, as principal, do this themselves and make the final decision of whom to recommend to hire. One of the six principals interviewed (E) indicated that he works with the teachers on the interview team to decide as a group who is the best candidate.

Principals in my study indicated that they value the outcomes related to fit. Their comments to me during our semi-structured interview attached importance in varying

degrees to each of the fit types within PE fit. The comments coded as PO fit were specific to matching the needs of students and school as well as school philosophy and values, whereas the PJ fit comments were targeted solely to the knowledge, skills, and abilities necessary to serve children. Principals who made comments coded as PG or PS fit were looking for something complementary to the existing group or supervisor instead of trying to match with their values.

Summary

A major finding that might go without saying is that the principals that I interviewed all remarked on the importance of getting the process right. Principal E said, "The most important thing is that we find the right people to do what our objective is and that's to teach children." One principal, Principal D, indicated the importance of the process in this way, "It's the first step in building a relationship with the person you're bringing into your organization." Another, Principal F, stated, "I think it's a thoughtful, purposeful, laborious, time consuming thing that you have to put a lot of energy and a lot of time into." The hiring process is crucial to a principal's success as a school leader and more importantly to the probability of student success.

Principals in BCPS have a great deal of autonomy in regards to their hiring process; yet almost all of those who participated in my capstone research use the same major steps in their selection process. First, they screen candidates through their application and résumés, then they use a team to interview candidates that made it through screening, next they hear opinions from the team, and then they call references for the person they want and make their final decision. It is rare that they use other tools including such things as asking candidates to teach. Some of the areas in which variation is most likely to occur are the questions that are asked and the format for processing the information from the interview during editing. This is exemplified in the question topics and question types used as well as the depth of each question. Some principals fully participate in the discussions with the hiring team following candidate interviews, but not all believe that participating fosters healthy conversations.

In terms of alignment with structured interview process, BCPS principals use some components of structured interviews, namely asking the same questions with all candidates, crafting better quality questions, using multiple interviewers, and training the interviewers. Principals also do some form of a job analysis, but my research indicates that they do not rate each answer or use anchored rating scales. I will discuss the implications of these results in the next section.

Discussion

This discussion will compare the findings of this capstone to literature on teacher selection, fit, and structured interviews. I will also discuss the findings in relation to my conceptual framework and original assumptions for this project.

Teacher Selection Process

My research focuses on the teacher selection process among BCPS elementary school principals. I chose this district because each principal could design their own process to match their unique school and I initially assumed that principals in this district would have processes distinctive to their school. I found however, that they followed the same common process as the majority of studies I reviewed, namely screening, an interview, then reference checks, with the interview as the centerpiece of each principal's process (e.g. Cannata et al., 2017; DeArmond et al., 2010; Engel & Finch, 2015; Liu & Johnson, 2006; Mason & Schroeder, 2010; Rutledge et al., 2008; Supon & Ryland, 2010; Whitworth et al., 2016).

Prior to interviewing candidates, BCPS principals looked at application documents and résumés in order to select candidates to be interviewed. Most principals viewed this as a screening process and used the interview to determine if candidates had the necessary KSAs for the position. One principal (D), however, indicated that through the application information alone they could determine if candidates had the necessary KSAs for the position, and this principal focused on assessing soft skills during the interview.

Three principals indicated in the survey that they used demonstration lessons in addition to interviews, but in the semi-structured interview only two (B and C) had used that tool, and they had done so for only one hire. This mirrors research that found minimal use of demonstration lessons (e.g., Cannata et al., 2017; Liu & Johnson, 2006). Principals always used references, but it became apparent during the semi-structured interviews that other tools were rarely used.

The principals in this district differ from many of those described in the research in emphasizing the importance of investing time and energy into the teacher selection process in order to have the best outcome for their students. Each interviewed principal stressed this point. The teacher selection literature indicated that all too often principals spend little time to decide whom they should recommend to hire (Rutledge et al., 2008). It was clear in my study that principals espoused the importance of the process. They also noted severe constraints on their time due to concern that they would lose good candidates to others who moved faster in their process. The desire to capture the best candidates, not their lack of recognition of the importance of the process, affected their actions to move through the process quickly. Their actions were based in experience: Each principal either had the experience, or heard of others, of losing a qualified candidate to another school who offered first. Principals put forward the perceived need for speed, rather than lack of recognition of the importance of the process, to explain why they discontinued using teaching demonstrations and other tools beyond the classic interview process.

Almost all of the principals in this study indicated that they felt confident in their ability to select teachers who are happy with their job and committed to their school. This is important because these are two of the outcomes of a good fit, with the third outcome being that the teachers plan to stay at the school. Interestingly, most principals indicated that finding teachers who planned to stay at their school was not a priority and they rated their ability to select teachers who plan to stay lower than their ability in the other two outcomes. The limited timeframe of this study does not allow me to evaluate their perceptions against reality, but it was clear that their values were reinforced by their self-analysis of results. I will discuss more about good fit and the results of this study below.

As stated above, interviewing teacher candidates is the focus of the teacher selection process in this district and principals rarely ask candidates to demonstrate their

teaching ability. Instead, they ask teacher candidates to talk about their skills. Principals seldom vary from a process that only includes screening, interviewing, and checking references. They do not create unique processes for teacher selection although they have the freedom to do so. This school district encourages each school to define themselves in unique ways. Nonetheless, the guiding principle appears to be one of normative isomorphism (DiMaggio and Powell, 1983), rather than one of evolving distinct processes to distinguish their organization from others. The common teacher selection process may be a reflection of this isomorphism. The teacher selection research typically reports that principals screen, hold interviews, and check references prior to hiring teachers and it is rarely reported that principals ask candidates to do anything else (e.g. DeArmond et al., 2010; Engel & Finch, 2015; Liu & Johnson, 2006; Mason & Schroeder, 2010; Rutledge et al., 2008; Supon & Ryland, 2010). The principals in this study followed the same pattern. This isomorphism might result because they went through the same process when they were hired as teachers or it might reflect what their mentors and supervising principals used as a process (as was stated by three of the six interviewed). These school principals have received similar training and must hold the same credential, which might be another reason for the convergence on a common teacher selection process. Regardless of what led them to the same process, my assumption that there would be a high level of variability was not correct.

Teacher Selection for Good Fit

When I developed this study I assumed that BCPS principals would design teacher hiring processes to determine person-organization (PO) fit, or good fit to their school. This section will discuss what I found in regards to their processes and different types of fit.

Interview questions and fit. If principals were looking for PO fit they would ask KSA questions as well as questions about professional values and goals during the interview. I analyzed the questions that principals said they asked as well as the questions found on their interview documents. I also reviewed the information they shared in regards to what they were looking for in a qualified candidate, although principals were usually vague in their descriptions of what they were looking for in a successful answer to the questions they pose to candidates.

The principals each used different interview questions, but they all had questions requiring teacher candidates to analyze information and asking them to describe instruction. These questions help identify a candidate's KSAs in order to determine if they had the necessary technical skills for the job. All principals talked about KSAs in their interview with me as well. It is clear from school documents as well as the semi-structured interviews that KSAs are important to BCPS elementary school principals when selecting a teacher.

There is less of a pattern for questions about professional values and goals. Only Principal D had twice as many value/goal questions as KSA type questions and he is one of the two who emphasized how important it was for teachers to want to be at his school. Principals E and F also stressed this, but while all of the principals said it was very important for teachers to want to be at their school when asked that direct question, only these three principals showed consistent emphasis on this in their answers throughout the semi-structured interview. Further, in the absence of a rubric or anchored rating scales it is impossible to know the requirements of each of the school questions. Perhaps principals are listening to hear values and goals imbedded in each answer from a candidate, but they did not say that in our conversations and the information isn't available on the document. According to the literature, knowing a candidate's professional values and goals is important to selecting for PO fit (Ingle et al., 2011). Principals may be hiring for PO fit, however based solely on the interview document question topics and the questions that principals discussed in their semi-structured interviews, I cannot say that PO fit was a distinct focus of these BCPS principals.

Inherent in the assumption that principals would select for PO fit is one that each school is unique. In both the semi-structured interviews and the interviewing documents there was some crossover in the topics of the principals' questions, and even, rarely, exact questions, yet they each mostly asked unique questions that were not duplicated by others. The number of unique questions might indicate that their schools are unique in some ways.

Informing candidates for fit. Principals did not generally inform candidates about the unique aspects of their school. Only one of the principals included information unique to their school in their questions. One principal, Principal C, said, "If they don't ask me about our school I share it in the end because I really believe that it has to be a fit both ways." Principal A said that their one on one interview is exclusively about scenarios unique to their school. All of the principals stated the importance of the candidate learning about their school but did not indicate that they share the information. Instead, some of them expected the candidate to do their own research. Four principals, (A, C, E, and F), said that they give candidates background information about the school before or during the interview, but there was no evidence of this on their documents. Three of the principals (A, C, and F) make it a point to tell candidates that teaching at their school is hard which is exemplified by Principal C who said, "I'm very forthright and honest at the end about how hard the work is." Candidates need to know about the school in order for a good fit to occur and it appears that some of the school principals in my study make efforts for this to occur, but not in a systematic, recorded way.

The things that principals listen for in the answers, however, are just as instructive as the questions asked and that will be discussed next.

Listening for fit. Principals did not provide rubrics, model answers, scoring benchmarks, or anchored rating scales to go with their interview questions. Therefore, my analysis of what they are looking for in ideal answers is speculative. It may be that KSA questions are questions designed to elucidate person-job (PJ) fit, however the principal could be listening for candidates' goals and values as well (PO fit). For example the question, "Tell us about your classroom during reading. What would we see and hear?" could be designed specifically to learn about a candidate's understanding of a sound structure and teaching plan for a class with mixed abilities, but principals may also be listening to hear if the teacher incorporates values such as establishing positive relationships and honoring all students. Many of the questions were the type that allowed speculation in regards to the scope of the look fors. A few questions, however were more specific to PJ fit such as one asked by Principal E, "Describe your familiarity with current computer technologies." Principals gave few clues on this however, in the semistructured interviews when they said what they were looking for in successful answers to the most valuable questions.

During my semi-structured interviews principals said that they were listening for information pertaining to class structure and format, differentiation, inclusion of English language learners and disabled students, beliefs around assessment, family engagement, classroom management, and Responsive Classroom practices. There was no consensus on the importance of these areas in regards to the final decision nor on areas in general. Based on these topics it is not clear if principals are listening more for professional values which could inform either PO or PG fit, KSAs (PJ fit), or a combination of values in line with the school combined with KSAs (PO fit). While this variability of focus supports my assumption that principals have distinctive needs to fill at their unique school, this array of responses does not clarify the type of fit assessed through the teacher selection processes in the study, therefore I cannot conclude that they were assessing for PO fit.

It is clear that the results of this study reflect the literature in that both professional and personal characteristics are important and there is a range of priority to either type among principals (e.g. Delli & Vera, 2003; Harris et al., 2010; Ingle et al., 2011; Mason & Schroeder, 2010). Based on my capstone study data it is unclear if one type of fit is more of a focus than another. The elementary school principals in my study may have designed their processes to hire for PO fit, but further research would need to take place in order to determine this.

Structured Interviews

There is almost universal agreement that structured interviews are more predictive of job performance than unstructured interviews (Culbertson et al., 2017; Huffcutt et al., 2013; Macan, 2009). In this capstone I looked at seven elements of a structured job interview. Namely, job analysis, same questions for all candidates, better types of questions in interview content, rating each answer, using anchored rating scales, using multiple interviewers, and training the interview team (Campion et al., 1997). I will discuss each in turn based on the results of my study.

Job analysis. The literature emphasizes that interview questions must be based on a job analysis in a structured interview (Campion et al., 1997). All principals mentioned that they conduct some form of informal job analysis, but their analyses appeared to lack rigor and depth. The most they described doing was to ask current teachers what they wanted in a successful candidate. More often, however, principals said that they "think about" what is needed for the position and then they move forward with the rest of the process. Perhaps these principals were able to identify critical job behaviors as is required in a job analysis (Maurer, 2002), but this does not seem likely. In order to qualify as a component of structured interview, principals would have identified specific KSAs and professional values necessary for success in the positions at their schools so that they could write questions around critical incidents specific to the job (Campion et al., 1997). If the principals had identified specific KSAs and professional values critical for success for each position at their schools, they would have been better able to write questions around critical incidents specific to the job (Campion et al., 1997). Each of these principals may have enough experience and depth of

knowledge that the job analysis only seemed shallow, but that would have to be determined in a future study.

Same questions. The next element of a structured interview described in the literature is that all candidates be asked the same questions. Asking the same questions of each candidate makes the process more fair (Dixon et al., 2002). All but one of the principals in the study typically do this. Through both the surveys and the semi-structured interview data I conclude that the Beetlewood County principals who I interviewed consistently integrate this component into their teacher selection process.

Better types of interview questions. Although there is not evidence that principals performed an in-depth job analysis, they did ask questions that were all related to teaching. Also, the vast majority of the questions they discussed in semi-structured interviews or provided in interview documents fit into one of the three categories of better types of questions as described in literature about structured interviews (Campion et al., 1997; Culbertson et al., 2017; Huffcutt et al., 1996; Levashina et al., 2014; McCarthy et al., 2010). Better types of questions are those around experience, past behavior, or those requiring a response to a description of a situation. About 80% of the questions on the interview documents fell into one of these three categories. The questions on the interview documents, and those mentioned in the semi-structured interviews, were also all specific to a teaching job (as required in better types of questions), even so, not all schools had the same quality of questions on their interview documents. Two schools had questions that did not require critical thinking or descriptions of skills in order to fully answer them.

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Rate each answer. None of the interviewed principals and only two of the principals on the survey rate each answer separately. In fact, the interviewed principals indicated that they find no value in this practice. Those who used to do it felt that they have achieved the same results without it and they prefer using their professional judgement instead of a defined score. Perhaps one reason for this is that they do not use rubrics, benchmark scoring guides, or anchored rating scales.

Anchored rating scale. None of the principals indicated using anchored rating scales. Following this practice of a structured interview improves the quality of the candidate selected by reminding the selection team of different levels of competence while reducing the cognitive load required of the interviewers (Dixon et al., 2002; Melchers, et al., 2011). An anchored rating scale plays a critical role in reducing the cognitive load and providing examples of thorough answers. Principals who participated in my research do not benefit in these ways from an anchored rating scale.

Multiple interviewers. All but one of the elementary school principals in this capstone study, however do use multiple interviewers each time they select a teacher. The one exception generally interviews alone, but sometimes uses multiple interviewers. Based on the results of my study BCPS elementary school principals value diverse opinions and one way they obtain this is to include people with diverse perspectives in their selection process. This practice also helps to reduce bias (Segrest et al., 2006) and increase perceived fairness (Macan, 2009).

Most principals include teachers on the interview panel; however, one principal includes a central office staff member in lieu of teachers in order to have an outside

opinion. Two principals add another layer of insulation to prevent their bias from affecting the interview team by staying silent during the team discussions after all interviews are completed. This allows the teachers to share observations without potentially conflicting with their principal's statements. The practice of principals remaining silent adds further value to the diverse perspectives of an interview team as it reduces the propensity for a group to agree with whatever the leader opines. One of these "silent principals" goes even further by inviting an administrator into the discussion after all candidates have been interviewed. This administrator has the role of asking clarifying questions and questioning group conclusions. It is valuable to have an outsider enter the conversation in order to avoid negative consequences of groupthink. It was not clear what type of diversity of opinion principals solicited, but they did have other members on their interview team.

Training interviewers. All of the BCPS elementary school principals in the study train others who participate in the interview. The training they provide focuses on legalities, which is only one of the four areas suggested for training (Chapman & Zweig, 2005; Melchers et al., 2011). This practice of training interview members simply to stay within the law falls short of this component of a structured interview. Four principals do also train interview team members on the importance of not talking in between interviews and "sticking with the script" which adds two lesser-studied components of structure (Campion et al., 1997). Those who participate on the interview team must be trained to interview well, however in order to comply with the fourth component of training interviewers. The closest that these principals come to this type of training is to share

some general look fors with the team. Principals' processes would benefit by training participants to be better raters based on anchored rating scales or scoring benchmarks. Unfortunately, there was no evidence that principals have developed anchored rating scales or rubrics, thus they cannot train teams to use them.

Principals in BCPS elementary schools do not follow structured interview practices. They generally use better types of questions and the same questions for each candidate as well as multiple interviewers, but they fall short of practicing the other elements of performing an in depth job analysis, rating each answer individually, using anchored rating scales, and providing extensive training for those on the interview team. The outcome benefits of improving decision making and reducing bias occur when all seven of these components are used (Campion et al., 1997). I will suggest some ways to improve in areas where these principals could improve in their hiring practices in the recommendations section later in this paper.

Summary

Principals in this study talked about "getting it right" when selecting a teacher for an open position, but they do not follow practices identified in the literature as more likely to improve their decision making. These principals generally follow the same teacher selection process regardless of any unique aspects of their school. They all use the interview as the main tool to select teachers consisting of interview questions unique to each school with overlapping common themes. Beetlewood County elementary school principals in this study say that they use the teacher selection process they learned prior to becoming a principal with little variation over the years. This outcome seems obvious in retrospect due to the demands on their time and the absence of direction from the district in this area. I talked with six elementary school principals and received survey responses from eight. As the surveys were reported anonymously there is no way to know how much crossover occurred in these samples. If all six of the principals who were interviewed also submitted a survey then only eight of the fifteen BCPS elementary school principals are represented. This is a small sample and the results of my study may not adequately represent the practices of BCPS elementary school principals. It is conceivable that the remaining principals use selection processes that are different from those represented in this study. More research is needed to know if the principals in this study are outliers or are representative of the others.

The conceptual framework of my capstone was based on principal decision making combined with employee fit based on research in K-12 education as well as that found in industry. Principals make a series of cumulative decisions in order to select a teacher for any opening in their school. This decision making process could be described by Tversky and Kahneman's (1992) cumulative prospect theory, which has two phases and accounts for both risk and uncertainty. I applied cumulative prospect theory by describing the first phase of framing (process design) and editing (initial candidate evaluation), as a time where the principal's hiring design elicits a representation of the facts about each candidate and the principal organizes this data in order to eventually synthesize it. I describe the second phase, called the valuation phase, as the point where the principal assesses the value of each of the available options (teacher candidates) and makes their choice. I assumed that this process would start as principals identified and prioritized elements of PO fit, such as KSAs, and professional values and goals (Chatman, 1989; Kristof-Brown et al., 2005). Then principals would design a process to elicit evidence of these in candidates and then select a final candidate based on what they learned during the process.

As discussed above, elementary school principals that I interviewed seemed to perform a perfunctory job analysis as part of their processes. Perhaps each principal has enough experience and depth of knowledge that the job analysis only seemed shallow, but that would have to be determined in a future study. As the job analyses seemed lacking in depth, it follows that principals did not seem to identify or prioritize elements of PO fit in any concrete or substantive way. If they did identify and prioritize these elements of fit, it was done intuitively. Principals ask candidates questions about KSAs, attributes, goals, and professional values, however, so perhaps one could say that they were assessing for PO fit. That came out clearly in only three of the semi-structured interviews, however and on only two of the interview documents and principals were vague about what they were looking for. Overall, there is not enough evidence to conclude that BCPS elementary school principals design their teacher selection process according to the KSAs, and professional goals and values that are important to each specific job opening.

Elementary school principals in my study did not do some of the important elements of the framing and editing phase, therefore the information that they might glean in this phase may not be as accurate as possible to allow a principal to evaluate applicants according to good fit, PO or otherwise. A good PO fit is a predictor of job satisfaction, commitment to the organization, and intent to stay in the job (Chatman, 1989; Kristof-Brown, Zimmerman, & Johnson, 2005). Based on my findings, one could not predict that the teacher selected would have a high probability of being satisfied, committed to the school, or plan to stay. Further study would need to occur however, in order to determine if this is the case, or if their processes are successful in this regard (as the principals believe).

From this study, I learned that Beetlewood County elementary school principals do make a series of cumulative decisions in order to select a teacher. They settled on some of these decisions, such as using a traditional interview, years before they became principals. Most of the principals have changed their process very little over the time they have been leading their school. They have used different questions over the years, but even in that regard, most talked about "refining" them and not "changing" them. These principals use the evidence learned from the interview questions that they ask, along with reference checks, to select a final candidate. My assumptions in regards to the details of my conceptual framework were not supported by this study.

Principals in this study use a teacher selection process of screening, interviewing, checking references, and recommending to hire. They do not commonly use enough of the components of a structured interview to reap the benefits of such a process. They did include others on the interview team, use the type of questions recommended, and ask the same questions of all candidates, but there is no evidence in the literature that these components alone are enough to improve decision making in the hiring process.

Principals probably did not purposefully select for good PO fit. Even if they had, the lack of structure would have disadvantaged them in their efforts. They did emphasize the importance of investing time and effort into the teacher selection process because of the importance of finding well-qualified teachers to work with in their schools.

I assumed that principals would design a process specific to their school needs, yet I learned that hiring practices are designed uniquely for each school only in the number of questions and content of interview questions. Only two principals in my study had a process that was at all unique. One sometimes has used a format much like speed dating where candidates rotated through teacher stations to talk about different topics important to that school in lieu of a traditional interview. They designed this process for the purpose of "self preservation" because they were too busy to hire the number of teachers that they needed through a more traditional interview. The other principal varied from the norm only in that they involved secretaries, the nurse, and the custodian in covert ways in the teacher selection process.

Another assumption underlying my research was that future practice will be improved as the information I learned is shared among BCPS principals and Human Resource Department leaders. The BCPS human resources director, in particular, is interested in learning about my findings and prior to the start of this study BCPS leaders indicated that they wanted me to present to the entire leadership team consisting of central office staff and school principals. I still hold this assumption as can be seen in my recommendations, which I discuss in the next section. These recommendations will focus on training for all principals in the district as well as ways that principals could collaborate in order to integrate the important elements of structured interviewing into their practice.

Recommendations

Recommendations presented here reflect the ways that the district could support elementary school principals to more effectively design a teacher selection process. The district values site-based management and principal autonomy and my recommendations honor that, yet I urge them to consider adding more centralized control. These recommendations focus on how the district can support principals in their efforts of "getting it right" rather than requiring a change in practices. At the time of this study, BCPS principals receive minimal hiring guidance and are not typically accountable for their decision making processes. They design their own hiring process, but do not have to report their practices or describe their decision making process. Principals are asked to select candidates from among those who have scored well on a screening interview, and by policy they have to follow "fair and legal practices", but further guidance is lacking unless it is requested. I suggest that BCPS leadership consider providing more structured support for hiring teachers. The county currently maintains a centralized performance evaluation for teachers so there is a precedent for centralized control in other areas. Independent-minded principals may not welcome such a change, but teacher hiring processes could be more predictive and at the very least, principals would have clearer hiring expectations.

Below I make five recommendations to district leadership in order to improve the teacher selection process and increase collaboration among autonomous principals in

BCPS. These recommendations are based on my findings in this study as well as the literature I reviewed.

Recommendation One: Train principals to use structured interviews.

Principals in this district indicated that they use the hiring process that they learned prior to becoming principals. For the most part they saw this process as they participated in interview teams or were interviewed and they adopted what they were familiar with. Two mentioned that they "had a lesson" during their credentialing and continue to follow what they learned during their credentialing class. These principals said that they want to "get it right" which may provide evidence that they will change their practices if taught a more effective way. Further, the policy directs principals to hire in a "fair and legal" way. Structured interviews reduce bias, increase fairness, and improve decision making in the hiring process (Campion et al., 1997; Levashina et al., 2014; McCarthy et al., 2010) and principals are more likely to follow a process if the expectations are clearly set by the school system (Cannata et al., 2017). The seven most commonly cited elements of a structured interview are: job analysis, same questions, and better types of questions in interview content, rating each answer, using anchored scales, using multiple interviewers, and training (Campion et al., 1997; Levashina et al., 2014). My research shows that BCPS principals consistently use only three of the seven most common components of a structured interview. The district also should model and reinforce this training as they incorporate principals into the interview teams for hiring of district office staff.

Principals should know why these elements are important and should be able to identify each of them in the design of their own hiring process. Principals who know the elements of a structured interview and understand their purpose would be more likely to incorporate them into their teacher selection process and have a higher probability of selecting effective teachers. Teaching principals about these elements and training them to use them in their hiring process would take time and resources, but could yield positive results.

Recommendation Two: Provide a training checklist for principals to use to prepare their interview teams for the teacher selection process.

An important part of structured interviewing is providing extensive interview training for the interview team to ensure that the other components of structured interviews are followed in order to minimize bias and make them more predictive of job performance used (Huffcutt et al., 1996; Huffcutt et al., 2013; Nowicki & Rosse, 2002; Rynes, Colbert, & Brown, 2002; Schmidt & Hunter, 1998). In order to evaluate effectively and fairly whom to hire, principals should not only be trained, but should know how to train others to use structured interviewing practices.

Once all principals have received training about the most important components of a structured interview, and why they are important, they should start training the other members of their interview team. One way to help principals accomplish this is to develop a checklist that describes each of the seven components along with the reasons why each component is important to an effective outcome. I propose a checklist format to enhance the ease with which it could be used. Further, a checklist with descriptions would be a concrete way to signal the importance of sharing this information with interviewing teams and a reminder of what principals learned in their training.

Recommendation Three: Encourage principals from like schools to do common job analyses of teacher positions.

Principals in the study "thought about" which criteria would be important in a teacher at their school. Five of the six interviewed asked teachers at the school what criteria they thought were important, but this process was shallow at best. A more thorough job analysis would provide a foundation upon which interview questions could be built. Staff from human resources could help facilitate this work and provide a draft analysis from which the final analyses could be built. There are common KSAs in every teaching position, as well as in the district evaluation criteria for current teachers, and this commonality could provide the basis for the human resources staff to develop a centralized draft analysis.

Principals in this district are encouraged to develop a unique culture at their school to reflect the surrounding community. Even so, it is likely that there are schools with similar cultures, values, and goals. Schools with like characteristics should be grouped and principals within these groupings should be encouraged to collaborate to develop job analyses with support from human resources staff members for positions at their schools. These job analyses might be based on current teacher evaluation criteria that is used by all schools in the district. Each analysis could be refined and modified for each school and over time, but such a collaboration would reduce the workload and might lead to a better product than if principals continue to work in isolation. Further, principals are more likely to do a thorough job analysis if they are asked to complete one with another principal with help from human resources staff members.

Recommendation Four: Ask principals to share interview questions with each other.

The interview documents from schools in this study indicated that there was some sharing of interview questions, however, it was very limited. All educators who have written an exam know how difficult it is to write questions that are clear, concise, and communicate the intended meaning. Writing questions to select a teacher is just as challenging and carries greater weight because of the importance of putting wellqualified teachers into classrooms.

Principals should develop questions that are characterized as one of the three better types that are based on the job analyses. These questions should require candidates to demonstrate critical thinking and analysis instead of one or two word answers. They should also continue to use better types of questions and they could more easily do both as they learn from each other. Principals could share their questions through an electronic repository so that others could learn from them. Another method of facilitating this would be for district leaders to develop an interviewing question bank based on all of the job analyses from which principals could select. Either way, principals would still be able to modify questions to address their school's unique needs and goals, but they would not always have to create them from scratch or find them on the internet (as one principal said they do). As principals share their interview questions, they will learn from each other and have opportunities to improve the quality of questions that they use.

Recommendation Five: Require principals to report their process to human resources department each time they hire a teacher.

Principals are more likely to use certain components of hiring when there are expectations from their leaders to do so (Cannata et al., 2017). If the district trains principals to effectively use the seven most common elements of a structured interview and then requires these autonomous principals to report their teacher selection practices it will make expectations more explicit and could result in compliance.

Also, district leaders have largely been unaware of the practices that BCPS elementary school principals used to hire teachers prior to this study. It is for these reasons that I suggest this small step of accountability be added to the district hiring expectations. At the time of this study, all principals in this district used a software program to fill out a form when recommending a candidate to be hired. This electronic form already has a place to indicate that principals have checked references. They also have to write at least three sentences explaining why the candidate they are recommending should be hired. It would be beneficial if the components of a structured interview were included in a list with check boxes and principals were asked to indicate which of them were used in their process. Adding such a list would reinforce the importance of these elements in the hiring process while still allowing principals agency. Other teacher selection tools could be included on the list, such as demonstration lessons, lesson critiques, and so on, which would provide a way for the county leaders to learn about the selection practices that principals use. In speaking with principals, there was little mention of being accountable for their hiring process. Hiring the right teachers for each position in a school is crucial to a school's success, thus principals should be accountable for their teacher selection practices. Requiring principals to report the components of their selection process would allow for autonomy, which is highly valued in this district, and would provide important accountability.

In addition to the benefits detailed above, performing a common job analyses or facilitating common questions would provide opportunities to learn from each other's results because of the commonality of the variables. More importantly, by following these recommendations teacher selection in this district will more predictably result in hiring teachers who are well-qualified for the position and who are more likely to be satisfied and committed to their school while still honoring the autonomy of principals as can be seen in Table 11.

This district values site-based management of schools. One of the challenges in a district that values principal autonomy may be motivating principals to change their practice. Principals in my study indicated that they want to "get it right" because they acknowledge the importance of teacher hiring. They also tended to train others on their interview panel to follow the law in regards to hiring practices. This demonstrates the value they place on hiring without prejudice. The desire to hire well is an indicator of possible motivation to change once they know that there is a better way. Learning a better way is an informational learning approach as described by Drago-Severson (2009,

p. 35) and my first recommendation is an informational approach to motivating

principals. If this recommendation were implemented, principals would learn not only

Table 11Sources of Evidence for Recommendations

Peer-Reviewed Research	Capstone Findings	Recommendations
Structured interviews reduce bias and improve decision making in the hiring process (Campion et al., 1997; Levashina et al., 2014; McCarthy et	Interview is the main tool used to select teachers.	Train principals to use structured interviews.
al., 2010). Structured interviews are more predictive of job performance than unstructured interviews (Culbertson et al., 2017; Huffcutt et al., 2013; Macan, 2009, Nowicki & Rosse, 2002; Rynes et al., 2002; Schmidt & Hunter, 1998).	BCPS principals consistently use only three of the seven most studied components of a structured interview.	
Interviews are complex and require skill that can be taught (Campion et al., 1997). Suggested training topics: a) importance of structure in interviews; b) information regarding the open position, or job analysis; c) rating of sample answers based on the anchored rating scale to improve interrater reliability; and d) legal issues surrounding candidate selection (Chapman & Zweig, 2005; Melchers et al., 2011).	BCPS principals train interview teams regarding legal issues, but do not consistently train in the other three suggested areas.	Provide a training checklist for principals to use with their interview teams to prepare them for the teacher selection process.
Job analysis is one of the most important components of selection (Singh, 2008; Dixon et al., 2002).	No principal in the study completed an in depth job analysis prior to interviewing.	Encourage principals from like schools to do common job analyses of teacher positions.
Better questions enhance validity and legality of interviews and improve user reactions (Campion et al., 1997)	The quality and depth of interview questions varied between schools.	Ask principals to share interview questions with each other.
Principals are more likely to use certain components of hiring when there are expectations from their leaders to do so (Cannata et al., 2017)	A reporting channel does not currently exist and human resources is largely unaware of specific practices.	Require principals to report their process to human resources department each time they hire a teacher.

how to use the elements of a structured interview, but they would learn of the predictive

value of structured interviews and the resulting bias reduction.

BCPS leadership might also consider implementing a transformational learning approach in order to motivate principals towards changing practices (Drago-Severson, 2009, p. 35). Recommendations two, three, and four could be enacted through teaming in order to be transformational. Drago-Severson names teaming as one of the approaches to transformational learning for adults because it helps to foster collegial relationships, empowers, and helps leaders adjust to change (p. 103). A team of principals might be recruited to develop a training checklist to be used by all as described in recommendation two. To enact recommendations three and four all principals would work in teams to analyze and reflect upon practices and collaborate to create job analyses and better questions to use in interviews. Recommendation five is designed to act as a reminder of prior informational and transformational learning. Additionally, unless there is a system change, it would serve as the only systematic mechanism for the county to know how teacher hiring occurs.

Summary

This section of my capstone included detailed findings from my research on principals' hiring practices. I also provided some recommendations based on what I learned from the relevant literature and my research findings. In the final section I provide action communications to district leadership regarding my findings, conclusions, and recommendations.

SECTION FIVE: ACTION COMMUNICATIONS

In the previous section I presented my research findings and shared recommendations based on those findings and the literature that I reviewed. In this section I will provide the action communications that I will use to communicate with the leaders of the school district in which I conducted research. These communications include a briefing memo and slides that I will present to district leadership outlining my research and the resulting recommendations. The memo and slides will encapsulate the purpose, methods, and results of the research that I performed with the permission of this district and the cooperation of its elementary school principals.

Briefing for District Leadership

Subject: Elementary School Principal Teacher Hiring Practices, Findings and Recommendations based on research conducted in spring of 2018.

Issue: Hiring well-qualified teachers is of utmost importance to the success of students, yet hiring practices have not been well researched. Principals in Beetlewood County do this work autonomously and their hiring processes have not been studied in the recent past. It is critical that principals hire according to the laws and county policy in order to be fair and put the most effective teachers in each classroom.

Research Methods: I used a mixed methods design to answer the research questions regarding principal decision making through the teacher hiring process. I surveyed elementary school principals, conducted semi-structured interviews, and obtained the questions that elementary principals used in their most recent teacher interview process. I analyzed the survey responses, semi-structured interview transcripts, and teacher candidate interview documents for patterns, trends, and outliers.

Current Status: Principals in this study typically use a common process for hiring teachers that includes screening, interviewing, and calling references. The principals interviewed screen using applications and resumes to decide whom to interview. Once they have decided whom to interview they invite them to a panel interview. The members of the interview team, which usually includes teachers, are prepped to ensure that they follow the law. Candidates answer between nine to nineteen questions and the interview team discusses the results according to their professional judgment. Principals decide whom they want to hire, they call references for that person and then they recommend to hire. Some principals look at portfolios to help them decide and more rarely candidates are asked to present or critique a lesson in order to help inform the principal's decision. All of the principals interviewed expressed the importance of this decision making process in order to put well-qualified teachers in their schools.

Based on the interviews I conducted, the teacher hiring processes do not typically include all of the main components of a structured interview. They do include two of the seven most of the time and three more in an incomplete way. These principals did not use the two components involving how a candidate is rated or assessed.

It was unclear from my research whether principals were primarily focused on finding a candidate that fit well with their school or with a teaching job in general. All principals who were interviewed asked questions about knowledge, skills, and abilities as well as professional values and/or goals, but it was not clear which had the highest priority or if they were equally valued because they were vague about what they were looking for in a qualified candidate as well as in the answer to each question.

Recommendations: I make the following five recommendations based on the literature review and my findings.

Peer-Reviewed Research	Capstone Findings	Recommendations
Structured interviews reduce bias and improve decision making in the hiring process (Campion et al., 1997; Levashina et al., 2014; McCarthy et al., 2010). Structured interviews are more predictive of job performance than unstructured interviews (Culbertson et al., 2017; Huffcutt et al., 2013; Macan, 2009, Nowicki & Rosse, 2002; Rynes et al., 2002; Schmidt & Hunter, 1998).	Interview is the main tool used to select teachers. BCPS principals consistently use only three of the seven most studied components of a structured interview.	Train principals to use structured interviews.
Interviews are complex and require skill that can be taught (Campion et al., 1997). Suggested training topics: a) importance of structure in interviews; b) information regarding the open position, or job analysis; c) rating of sample answers based on the anchored rating scale to improve interrater reliability; and d) legal issues surrounding candidate selection (Chapman & Zweig, 2005; Melchers et al., 2011).	BCPS principals train interview teams regarding legal issues, but do not consistently train in the other three suggested areas.	Provide a training checklist for principals to use with their interview teams to prepare them for the teacher selection process.
Job analysis is one of the most important components of selection (Singh, 2008; Dixon et al., 2002).	No principal in the study completed an in depth job analysis prior to interviewing.	Encourage principals from like schools to do common job analyses of teacher positions.
Better questions enhance validity and legality of interviews and improve user reactions (Campion et al., 1997)	The quality and depth of interview questions varied between schools.	Ask principals to share interview questions with each other.
Principals are more likely to use certain components of hiring when there are expectations from their leaders to do so (Cannata et al., 2017)	A reporting channel does not currently exist and human resources is largely unaware of specific practices.	Require principals to report their process to human resources department each time they hire a teacher.

Sources of Evidence for Recommendations

Summary: Principals already seem to know how important it is to "get it right" when hiring teachers. The recommendations regarding how to improve the accountability and predictability of the process should be considered to help empower principals in this important work.

Slide Show Presentation

PRINCIPAL DECISION MAKING IN THE TEACHER SELECTION PROCESS

Presentation to District Leadership December 2018

PROBLEM OF PRACTICE

- Students need good teachers
- Principals are responsible to hire those teachers
- There is limited centralized direction

Board Policy

- open competition
- follow regulations
- hire in a balanced way to provide opportunities for entry-level candidates
- select the best possible candidate
- follow the law

PURPOSE OF STUDY

- Explore hiring practices of elementary school principals
- Compare interview practices to elements of structured interviews recommended by the research
- Engage principals in an examination of current practices
- Add to the teacher hiring research base

OVERARCHING RESEARCH QUESTION

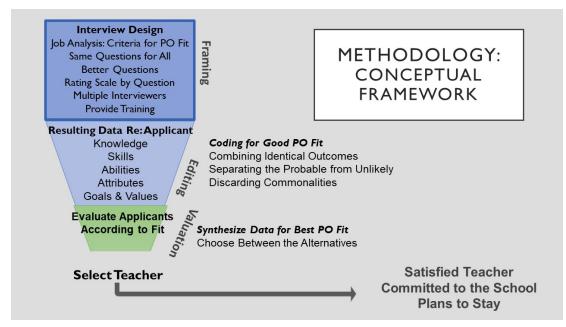
• How do autonomous elementary school principals make decisions about whom to hire?

HOW DO ELEMENTARY SCHOOL PRINCIPALS MAKE DECISIONS ABOUT WHOM TO HIRE?

- I. How do principals design the teacher hiring process?
- a) What is the process that elementary principals use?
- b) How do they decide upon a process to use?
- c) In what ways do principals expect their process to identify knowledge, skills, abilities, attributes, and instructional goals of the candidates?

HOW DO ELEMENTARY SCHOOL PRINCIPALS MAKE DECISIONS ABOUT WHOM TO HIRE?

2. How does the interview process used by elementary principals compare with structured interview practices in industry?



METHODOLOGY					
	Method	n	Mode of analysis	RQ addressed	
Principal survey	Quantitative	8	Descriptive statistics Comparative analysis among schools & to elements of structured interviews	lb, lc, 2	
Interview document analysis	Quantitative & Qualitative	6	Comparative analysis among schools & to elements of structured interviews	lc,2	
Semi- structured interviews	Qualitative	6	Thematic coding Comparative analysis among schools & to elements of structured interviews	1a, 1b, 1c, 2	

KEY FINDINGS

- All interviewed principals place high value on "getting it right"
- Principals use a common process
- Principals use some components of a structured interview process
- There was not enough evidence to determine whether principals designed their process explicitly to assess for person-organization fit

KEY FINDINGS: PROCESS

Common Process

- screening
- panel interview
- call references
- recommend to hire

Sometimes Used

• portfolio analysis

Rarely Used

- lesson presentation
- lesson critique
- observation

KEY FINDINGS: STRUCTURED INTERVIEW

Typically Implemented

- same questions
- multiple interviewers

Rarely Implemented

- rate each answer
- anchored rating scales (look fors)

Partially Implemented

- job analysis
- better types of questions designed to solicit answers around pertinent experiences, knowledge, and educational philosophy
- training interviewers

KEY FINDINGS: PERSON-ORGANIZATION FIT

- Person-Organization Fit
 - skills and philosophy match well with school needs
- Person-Group Fit
 - skills and philosophy match well with team

More research is needed to determine the area of focus.

RECOMMENDATION ONE:

Train principals to use structured interviews

Peer-Reviewed Research	Capstone Findings
Structured interviews reduce bias and improve decision making in the hiring process (Campion et al., 1997; Levashina et al., 2014; McCarthy et al., 2010).	Interview is the main tool used to select teachers.
Structured interviews are more predictive of job performance than unstructured interviews (Culbertson et al., 2017;Huffcutt et al., 2013;Macan, 2009,Nowicki & Rosse, 2002;Rynes et al., 2002; Schmidt & Hunter, 1998).	BCPS principals consistently use only three of the seven most studied components o a structured interview.

RECOMMENDATION TWO:

Provide a training checklist for interview teams

Peer-Reviewed Research	Capstone Findings
Interviews are complex and require skill that can be taught (Campion et al., 1997).	BCPS principals train interview teams regarding
Suggested training topics: a) importance of structure in interviews;b) information regarding the open position, or job analysis; c) rating of sample answers based on the anchored rating scale to improve interrater reliability; and d) legal issues surrounding candidate selection (Chapman & Zweig, 2005; Melchers et al., 2011).	legal issues, but do not consistently train in the other three suggested areas

RECOMMENDATION THREE:

Provide opportunities for like schools to do job analyses

- common knowledge, skills, and abilities
- based on district vision and expectations
- principals add school specific needs and goals

Peer-Reviewed Research	Capstone Findings
Job analysis is one of the most important components of selection (Singh, 2008; Dixon et al., 2002).	No principal in the study completed an in depth job analysis prior to interviewing.

RECOMMENDATION FOUR:

Share high-quality interview questions

- develop questions using the job analyses
- provide space for shared questions on leadership team drive

Peer-Reviewed Research	Capstone Findings
Better questions enhance validity and legality of	The quality and depth of
interviews and improve user reactions (Campion et al.,	interview questions varied
1997).	between schools.

RECOMMENDATION FIVE:

Include a process checklist in hiring software

- Principals understand the importance of fair hiring done well
- Site-based leadership can be maintained as hiring support is increased

Peer-Reviewed Research	Capstone Findings
Principals are more likely to use certain components	A reporting channel does
of hiring when there are expectations from their	not currently exist and
leaders to do so (Cannata et al., 2017).	human resources is largely
	unaware of specific
	practices.

QUESTIONS?

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Appendix A: Initial Electronic Correspondence for On-line Survey

Dear Colleague:

As you may know, I am a doctoral student in the Curry School of Education at UVA in addition to being the assistant principal at Tiger Beetle Elementary School. I am researching the process of hiring classroom teachers as my capstone project. The purpose of this email is to invite you to participate in this research study by completing an electronic survey. This is voluntary, but your participation is important to me and I will be very grateful.

The survey takes about 10-15 minutes to complete. There is no compensation for responding. The study involves minimal risk to you because it is *anonymous* and I will not know which answers are yours. All responses will be reported anonymously and all files will be securely stored. After the study is complete the record will be destroyed. You may choose not to answer any of the questions and you may withdraw your consent and discontinue at any time during the survey.

Here is the link to the survey and informed consent agreement. Please feel free to ask me any questions that you may have or contact me for clarification regarding this email.

The attached consent form has further details about what I'm asking of you and explains all risks and is the same as the one in the survey link. If you choose to participate please click on the survey link below. Feel free to contact me with any questions through email or by phone 973-8301.

Thank you so much for considering this, Staci England

Appendix B: Informed Consent Agreement for Online Survey

Please read this consent agreement carefully before you decide to participate in the study.

Purpose of the research study: The purpose of this study is to investigate elementary school principals' teacher selection process in Beetlewood County Public Schools (BCPS). This will be done by learning about each principal's interview process as well as other parts of your classroom teacher selection process. I will aggregate all information and use it in my doctoral capstone as well as in a presentation I will give to BCPS HR leadership.

What you will do in the study: At the end of this message, you will see a button to agree to participate in a survey regarding your teacher hiring process. The survey will ask questions related to your process for hiring teachers.

Time required: The survey consists of fifteen questions and should take no more than 10-15 minutes to complete.

Risks: This study poses no more than minimal risk to you personally or professionally. The information that you provide in this study will be anonymous; nonetheless, there is risk of inadvertent disclosure of hiring practices that are not done in a fair and legal manner in alignment with BCPS policy. The EEOC states that illegal hiring practices include discrimination because of race, color, religion, sex (including gender identity, sexual orientation, and pregnancy), national origin, age (40 or older), disability or genetic information. If you have reason to believe that your hiring practices are not in alignment with BCPS policy, please do not complete this survey.

Benefits: There are no direct benefits to you in this study. Participation in this study will help me understand the nature of elementary school teacher selection processes in BCPS and I will share what I learn.

Confidentiality: As noted above, the information that you provide in this study will be **anonymous** which means that your name will not be collected or linked to the data that you provide. When the study is completed and the data have been analyzed, all data will be destroyed.

Voluntary participation: Your participation in the study is completely voluntary.

Right to withdraw from the study: You have the right to withdraw from the study at any time without penalty. You may withdraw from survey by closing your browser window.

How to withdraw from the study: Due to anonymity of the responses, if you withdraw your consent after completing the survey, it will not be possible to remove your responses at that time.

Payment: You will receive no payment for participating in the study.

If you have questions about the study, contact:

Staci England	David Eddy-Spicer, Ed.D.
2775 Powell Creek Dr.	Dept. of Leadership, Foundations and Policy
Charlottesville, VA 22911	Curry School of Education, UVA
Telephone: 434-566-1603	405 Emmett St. South
Email: se5a@virginia.edu	Charlottesville, VA 22901
-	Telephone: 434-566-1603
	Email: dhe5f@virginia.edu

If you have questions about your rights in the study, contact:

Tonya R. Moon, Ph.D. Chair, Institutional Review Board for the Social and Behavioral Sciences One Morton Dr Suite 500 University of Virginia, P.O. Box 800392 Charlottesville, VA 22908-0392 Telephone: (434) 924-5999 Email: irbsbshelp@virginia.edu Website: www.virginia.edu/vpr/irb/sbs

Thank you for your consideration to participate in this study. Your responses are important and valuable to provide insight into teacher selection and hiring for BCPS. I hope that you will choose to participate.

ELECTRONIC CONSENT: Please select your choice below.

Clicking on the "agree" button below indicates that:

- You have read the above information
- You voluntarily agree to participate

If you do not wish to participate in the research study, please decline participation by clicking on the "disagree" button or close your browser.

Agree Disagree

You may print out a copy of this page for your records.

Appendix C: Electronic Survey Questions

The purpose of this survey is to gather information to compare BCPS hiring practices with those found in the research. Thank you for participating! *Please answer all questions below according to the legal and fair practices that you follow.*

 Which of the following do you typically use when hiring classroom teachers?

 (select all that apply)

 □Interview
 □Writing Sample

 □ Lesson Presentation (candidate teaches)
 □Portfolio

 □Lesson Critique (candidate critiques a lesson plan, video, or live lesson)
 □References
 □Other:

In the table below, indicate the value of the selection tools you typically use.

	Not at all	Slightly	Moderately	Very
	important	important	important	important
	(1)	(2)	(3)	(4)
Interview	0	0	0	0
Writing Sample	Ο	Ο	0	Ο
Lesson Presentation (candidate teaches)	0	Ο	0	Ο
Portfolio	Ο	Ο	0	Ο
Lesson Critique (candidate critiques a lesson plan, video, or live lesson)	0	0	О	0
Reference Checks	Ο	Ο	0	Ο
Other	0	О	Ο	0

Which of the following have you ever used when hiring classroom teachers?

(select all that apply)

 \Box *Interview* \Box *Writing Sample* \Box *Lesson Presentation (candidate teaches)* \Box *Portfolio* \Box *Lesson Critique (candidate critiques a lesson plan, video, or live lesson)* \Box *References* \Box *Other:*

You indicated that you have used the following selection tools in the past. Please indicate the main reason you don't <u>typically</u> use them.

	Didn't result in helpful information	Takes too much time	Replaced by something better	Other reason (explain)
Interview	Ο	Ο	Ο	
Writing Sample	Ο	Ο	0	
Lesson Presentation (candidate teaches)	Ο	Ο	0	
Portfolio	Ο	0	0	
Lesson Critique (candidate critiques a	Ο	0	0	
lesson plan, video, or live lesson)				
Reference Checks	Ο	0	0	
Other	Ο	Ο	0	

Please answer the following questions about your most recent K-5 classroom teacher interviews (not including specialists, sped, etc.).

How many times do you typically interview a candidate before hiring them to be a teacher?

In the interview(s)	(select all that apply)			
Who else helped ask questions of the	\Box Teacher(s)	\Box Parent(s)	Asst. Principal	
candidate?	\square No one else,	□ Other:		
Who else helped evaluate answers from	\Box Teacher(s)	\Box Parent(s)	Asst. Principal	
the candidate?	\square No one else,	I was alone.	□ Other:	

Did you use the same questions for each candidate per vacancy?

- □ Yes
- □ No
- □ I do more than one interview and each interview is different

Did you rate the answer to each question separately or evaluate holistically after the interview?

- □ Rate each question separately
- □ Evaluate holistically
- □ I do more than one interview and each interview is different

There are many types of questions that can be asked in a teacher interview. Which type of answers were the majority of interview questions you used designed to solicit?

- □ Answers that require them to talk about their past experience (These may include a phrase like: Tell me about a time you...)
- □ Answers that require them to talk about their philosophy (These may include a phrase like: What is the best way to... OR What would you do if...)
- \Box About the same amount of both types.
- \Box Other: please explain____

How long was the average teacher candidate interview?

- \Box Less than 30 minutes
- \Box 30-45 minutes
- \Box 45-60 minutes
- \square more than 60 minutes

In your view, how effective is the hiring process at your school in regards the following:

	Almost	Less than half the time	About half the time	More than half the time	Almost always
The hiring process at our school results in selecting teachers who:					
enjoy working at our school.	Ο	0	0	0	0
are committed to the teaching profession.	0	0	Ο	0	0
are committed to the goals of the school.	О	0	О	О	0
intend to teach at this school for more	0	0	О	0	0
than 5 years effectively teach all children.	О	0	Ο	0	0

Please indicate the importance of the following in your hiring process.

	Not at all	Slightly	Moderately	Very
	important	important	important	important
	(1)	(2)	(3)	(4)
How important for you is it to select teachers who:				
enjoy working at our school?	Ο	Ο	0	Ο
are committed to the teaching profession?	0	0	0	0
are committed to the goals of the school?	Ο	Ο	0	0
intend to teach at this school for more than 5 years?	Ο	0	0	0
effectively teach all children?	Ο	Ο	Ο	0

Would you like more training about effective teacher hiring practices? OYes ONo O Maybe

Appendix D: Initial Electronic Correspondence for Semi-structured Interviews

Dear Colleague,

As you know, I am researching about how principals hire teachers for my UVA capstone. I am writing to invite you to participate in the interview portion of my research. Through these interviews, I am hoping to gather more information than was possible through a survey to learn about how you hire teachers. The interview will take about 40 minutes and I will schedule it for the time and place that are most convenient for you, but I hope to complete all of the interviews by May 25th.

If you are willing to participate please do the following:

- 1. Read the attached consent and questions that I will be asking, and then if you are still interested email or call me to let me know that you are interested in participating.
- 2. You can also check your calendar and let me know of dates that would work for a 40-45 minute interview with you. I know this is a busy time of year, so I want to work around your schedule. If you reply without providing your availability I will contact you to arrange a time.

If you would rather not participate, please reply to tell me so.

Please let me know if you have any additional questions. I know how busy you are so I will give you a phone call if I don't hear back from you in the next few days.

Sincerely, Staci England

Appendix E: Informed Consent for the Semi-structured Interviews

Please read this consent agreement carefully before you decide to participate in the study.

Purpose of the research study: The purpose of this study is to investigate elementary school principals' teacher selection process in Beetewood County Public Schools (BCPS). This will be done by learning about how you interview candidates for a classroom teacher position as well as other parts of your classroom teacher selection process. I will aggregate all information and use it in my doctoral capstone as well as in a presentation I will give to BCPS HR leadership.

What you will do in the study: You will participate in an interview regarding your teacher selection process. Your participation in the study is voluntary. You have the right to withdraw from the study at any time without penalty. You have the right not to answer any question, and to stop the interview at any time for any reason. There is no penalty for withdrawing.

Time required: The interview will take about 45 minutes of your time.

Risks: This study poses no more than minimal risk to you personally or professionally. The information that you provide in this study will be confidential; nonetheless, there is slight risk of inadvertent disclosure of hiring practices that are not done in a fair and legal manner in alignment with BPCS policy. If this happened and the information was inadvertently released it may result in damage to your professional standing or reputation. The EEOC states that illegal hiring practices include discrimination because of race, color, religion, sex (including gender identity, sexual orientation, and pregnancy), national origin, age (40 or older), disability or genetic information. If you have reason to believe that your hiring practices are not in alignment with BPCS policy, please do not agree to participate in this interview.

Benefits: There are no direct benefits to the participants in this study. Participation in this study will help me understand the nature of elementary school teacher selection processes in BPCS and I will share what I learn.

Confidentiality: To minimize the risk of inadvertently disclosing personally-identifiable information, the information that you give me in this study will be handled confidentially. You will be asked to select a pseudonym or I'll assign you a pseudonym. The list connecting your real name to this pseudonym will be kept in a locked file. When the study is completed and the data have been analyzed, this list will be destroyed. Real names will not be used in any report. I'll use pseudonyms for participating schools as well. All documentation of interviews (audio files, transcripts, related school documents) will be stored at a secure location in my home or office. Consent forms will have identifying information but will not be linked to pseudonyms. Signatures will be required on consent documents which will be maintained in a secure location at my home or office. Once the data has been analyzed, audio files and transcripts will be destroyed.

Voluntary participation: Your participation in the study is completely voluntary.

Right to withdraw from the study: You have the right to withdraw from the study at any time for any reason without penalty. If you decide to withdraw, I will delete audio files and transcripts of any interviews that I conduct with you.

How to withdraw from the study: You may withdraw from this study during the interview by telling me to stop the interview. The audio recordings will be stopped and files will be deleted at that time. After the completion of the interview you may withdraw by contacting me through email or by phone.

Payment: You will receive no payment for participating in the study.

If you have questions about the study, contact:

Staci England 2775 Powell Creek Dr. Charlottesville, VA 22911 Policy Telephone: 434-566-1603 Email: se5a@virginia.edu

David Eddy-Spicer, Ed.D. Dept. of Leadership, Foundations and Curry School of Education, UVA 405 Emmett St. South Charlottesville, VA 22901 Telephone: 434-566-1603 Email: dhe5f@virginia.edu

If you have questions about your rights in the study, contact:

Tonya R. Moon, Ph.D. Chair, Institutional Review Board for the Social and Behavioral Sciences One Morton Dr Suite 500 University of Virginia, P.O. Box 800392 Charlottesville, VA 22908-0392 Telephone: (434) 924-5999 Email: irbsbshelp@virginia.edu Website: www.virginia.edu/vpr/irb/sbs

Agreement: The nature and purpose of this research has been satisfactorily explained to me, and I agree to become a participant in the study described above. I understand that I am free to discontinue my participation at any time and that the investigator will answer any questions that arise during the course of the research project.

Signature: _____ Date: _____

You will receive a copy of this form for your records.

If you do not wish to participate, you may retain this form or return the unsigned form to me.

IRB-SBS Of	fice Use Only	
Protocol #	2018-0088	
Approved	from: 2/23/18	to: 2/22/19
SBS Staff	gn-	

Appendix F: Semi-Structured Interview Protocol

Thank you for agreeing to participate in this interview today. The purpose of this interview is to learn more about your decision making process in regards to hiring teachers. What I learn will be used for my doctoral capstone at UVA and will help inform our division practices and expand the body of research regarding teacher selection and hiring practices.

I am recording our conversation and I will use this recording to make a transcription of this interview which will be provided to you. You will have the opportunity to make edits or corrections to any of your comments. All of your comments will be treated as confidential and I will not use your name, or the name of your school in my capstone. Please answer accurately and honestly in regards to your decision making and hiring process. Our conversation will be most productive if it represents an accurate description of your hiring process. Of course, there are no right or wrong answers to any of these questions, but it is very helpful if you use specific examples as you answer.

Please answer all questions below according to the legal and fair practices that you follow.

Remember that you have the right to pass on any questions you do not wish to answer and can end the interview, if you so choose, at any time. Just let me know and I will stop. As a reminder, please be as specific as possible. Do you have any questions for me before we begin?

- 1. Please describe your typical classroom teacher hiring process.
 - a. Follow up: Which parts of that process do you feel are most valuable to identify a teacher who meets the needs of your school and community?
- 2. How did you decide on the process you just described?
 - a. Follow up: Have you always used this process? If not, how has it changed and why?
- 3. What are the most useful elements of the hiring process to help you determine if candidates have the knowledge, skills, and abilities to be an effective teacher at your school?
- 4. Let's talk specifically about interviewing teacher candidates: What is the most useful interview question that you use?
 - a. Follow up: What about it makes it so useful? What are you looking for in a qualified candidate's answer?
- 5. In order to evaluate a candidate's interview some principals have a rubric for each question (sample or criteria based); some score at the end, and some use professional judgment without a score. Do you do something similar? Will you explain your interview evaluation process?
- 6. Will you share your most recent classroom teacher interview questions with me along with any accompanying rubric for how you evaluate candidates (if you have one)?

- 7. Who helps you make the decision on which candidate to hire?
 - a. Follow up: What type of training, if any, do other panel members have prior to the interview?
- 8. How do you decide which knowledge, skills, abilities, qualities, instructional goals, etc. that you are looking for?
 - a. Follow up: Do you share these look fors with the interview panel? Do others help identify them?
- 9. Think about your hiring process over the past 5 years. How has it changed?
- 10. How important is it to you, to hire teachers who will enjoy working at your school?
- 11. How important is it to you, to hire teachers who are committed to the teaching profession?
- 12. How important is it to you, to hire teachers who are committed to the goals of your school?
- 13. How important is it to you, to hire teachers who are committed to stay at your school for more than 5 years?
- 14. How effective do you feel your hiring process is in regards to selecting wellqualified teachers?
- 15. Is there anything else you would like to share?

Appendix G: Survey Responses

Responses to the questions - "Which of the following do you <u>typically</u> use when hiring classroom teachers?" and "In the table below indicate the value of the selection tools you typically use."

	Number of		value to the principal's sion making process	
<i>N</i> = 8	principals who typically use	Very important	Moderately	Slightly important
Reference checks	8	7	1	-
Portfolio	6	3	2	1
Lesson presentation (candidate teaches)	3	2	1	-
Writing sample	2	1	1	-
Observe interactions with children	2	1	2	-
Lesson critique (candidate critiques a lesson plan, video, or live lesson)	1	1	-	-
Case study	1	-	-	-

Elements Typically Used When Hiring Teachers

*Not all principals indicated a value for each element

Responses to the questions - "Which of the following do you <u>ever</u> used when hiring classroom teachers?" and "You indicated that you have use the following selection tools in the past. Please indicate the main reason you don't <u>typically</u> use them."

Discarded Teacher Selection Elements

		Reason for discarding			
				Replaced	
	Number of principals who		Took too	with something	
N = 8	once used	Not helpful	much time	better	
Lesson presentation	5	-	4	-	
Writing sample	4	3		1	
Lesson critique	3	1	1	1	
Portfolio	1	1	-	-	

*not all respondents indicated why they discarded each element

Responses to the question – "**How many times** do you typically interview a candidate before hiring them to be a teacher?"

Typical Number of Interviews Per Candidate

<i>N</i> = 8	1 Interview	1-2 Interviews	2 Interviews
Number of Principals	3	1	4

Responses to the questions - "Who else helped **ask questions** of the candidate?" and "Who else helped **evaluate answers** from the candidate?"

	~~~~~	Assistant			Central Office
N = 8	Teachers	Principals	Parent	No One	Staff
Asked questions	8	6	0	0	1
Evaluated answers	8	6	0	0	1

Others Inc	luded in ti	he Hiring	Process
------------	-------------	-----------	---------

Responses to the question - "Did you use the same questions for each candidate per vacancy?" N = 8

7 - Yes

0 - No

1 - Yes in one round and No in the other

Responses to the question - "Did you rate the answer to each question separately or evaluate holistically after the interview?" N = 8

- 2 Rate each question separately
- 5 Evaluate holistically
- 1 I do more than one interview and each interview is different

Responses to the question - "There are many types of questions that can be asked in a teacher interview. Which type of answers were the majority of interview questions you used designed to solicit?" N = 8

- 0 Answers that require them to talk about their past experience (These may include a phrase like: Tell me about a time you...)
- 0 Answers that require them to talk about their philosophy (These may include a phrase like: What is the best way to... OR What would you do if...)
- 6 About the same amount of both types.
- 2 Other: 1 indicated that they ask questions regarding how a child would describe them and 1 left the description blank

Responses to the question - "How long was the average teacher candidate interview? N = 8

- 0 Less than 30 minutes
- 2 30-45 minutes
- 6 45-60 minutes
- 0 more than 60 minutes

Responses to the question - "In your view, how effective is the hiring process at your school in regards the following:"

	More than			
N = 8	About half the time	half the time	Almost always	
The hiring process at our school results in selecting				
teachers who:				
enjoy working at our school.	1	-	7	
are committed to the teaching profession.	1	-	7	
are committed to the goals of the school.	1	1	6	
intend to teach at this school for more than 5 years.	1	5	1	
effectively teach all children.	1	2	5	

How Principals Regard Outcomes of their Teacher Selection Process

*Not all principals marked an outcome for each question.

"Less than half the time" & "almost never" were also options.

Responses to the question - "Please indicate the importance of the following in your hiring process."

#### Importance of Fit Outcomes to Principals

	Slightly Moderate		ly Very	
<u>N = 8</u>	important	important	important	
How important for you is it to select teachers who:				
enjoy working at our school?	-	-	8	
are committed to the teaching profession?	-	1	7	
are committed to the goals of the school?	-	-	8	
intend to teach at this school for more than 5 years?	2	4	2	
effectively teach all children?	-	-	8	

*"Not at all important" was also an option.

Responses to the question - "Would you like more training about effective teacher hiring practices?" N = 81-Yes 4- No 3- Maybe