

Teacher Selection: School Principal Hiring Practices, Level of Training, and Confidence

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Abstract

Student success is dependent on teacher quality; therefore, principals must hire the most effective teachers in order to ensure continuous school improvement. This study investigated teacher hiring processes to determine the extent to which principals use research-based practices that are most likely to identify high-quality teachers. This study also sought information about the type of personnel selection training principals receive and confidence of the principal in their ability to hire high-quality teachers. Data were gathered using a survey e-mailed to principals in ten states in the southern and western regions of the United States. Analysis indicated that principals favor traditional interviews as the primary teacher selection instrument and are unlikely to utilize predictive screening tools or research-based structured interviews. In most cases, principals do not make final hiring decisions based on measurable data or research-based qualities known to be predictive of high teacher performance. Most principals reported minimal teacher selection training through one-time workshops and graduate courses and yet possess a high degree of confidence in their skill to hire the best teachers.

Keywords: Teacher selection, Teacher quality, Structured interviews, Teacher characteristics, Principal training, Principal confidence

1. Introduction

Recent literature provides a clear link between the quality of classroom teachers and outcomes for students (Ballard & Bates, 2008; Darling-Hammond, 2000; Hattie & Zierer, 2018; Marzano, 2003; Stronge, Ward, Tucker, & Hindman, 2008). Despite the growing body of knowledge regarding the importance of teacher skill, the study of processes used to hire

teachers who are most likely to impact student growth is an often overlooked element of school improvement (Loeb, Beteille, & Kalogrides, 2012). Most principals agree that hiring effective teachers is one of their most important roles (Pillsbury, 2005) and that bad hiring decisions are detrimental to both student achievement and school culture (Loeb, Beteille, & Kalogrides, 2012), and yet there is a relatively small amount of research specific to education to guide principals as they develop processes to select teachers.

Teacher hiring differs from methods used in other types of organizations because the principal is unlikely to have human resource training or experience, and yet he or she is typically responsible for both the creation of the hiring process as well as teacher selection decisions (Jacob, 2016). As a result, some principals handle teacher selection in an impromptu manner based on expediency rather than best practices (Goldhaber, Grout, & Huntington-Klein, 2014). In addition, principals tend to select teachers based on their own interpretation and perceptions of the candidate's competency, character, and chemistry (Bourke, 2012) rather than developing mechanisms that will allow selection of the candidates who possess the specific instructional skills necessary to move the school community towards identified improvement goals (Mertz, 2010). In short, principals often hire teachers based on their Selectiveness (Murnane & Steele, 2007).

There is clear guidance regarding effective hiring practices available from researchers in a variety of fields including management, medicine, law, and the military, but this research is often overlooked by educators who feel that teaching is so uniquely complex that the findings from other fields do not apply (Harris & Rutledge, 2010). Despite this pervasive myth of the uniqueness of teaching, research does support the application of findings from selection science to the teacher hiring process in order to improve both teacher quality and outcomes for students (Heneman and Milanowski, 2004). The reasons for not adopting teacher selection practices reflected in the broad base of literature are likely varied, and it is unclear if principals' level of training or confidence regarding the quality of the teachers they have hired in the past preclude them from making research-based changes to improve their processes.

Given the potential that effective teacher hiring will positively impact student outcomes, this study was designed to examine the type of teacher selection training principals possess, if the actual hiring practices utilized in schools include research-based elements most likely to identify high performing teachers, as well as principals' confidence in their hiring processes.

Research questions for this study:

RQ1. Do principals utilize hiring practices that include elements identified by research as those most likely to identify high-quality teachers?

RQ2. What is the level of principal training to design and implement effective teacher selection processes?

RQ3. How confident are school principals that their hiring process results in the selection of high-quality teachers?



2. Literature Review

2.1 The Importance of Evidence Based Teacher Selection Practices

Every opportunity to hire a new teacher is also an opportunity to improve the school and outcomes for students (Mertz, 2010) and selecting an ineffective teacher is a costly mistake in terms of both student achievement and school culture. Ronfeldt, Loeb and Wykoff (2013) found that teacher departure causes overall declines in school morale for both teachers and students of the teachers that leave, as well as the students of the teachers that stay. They also reported that student achievement declined during periods of teacher turnover. Kraft, Marinell, and Shen-Wei Yee (2016) similarly found that improvements in school leadership, academic expectations, teacher relationships, and school safety are all associated with corresponding reductions in teacher turnover. A new teacher is also a significant economic investment on the part of a school. School districts make about a two-million-dollar career investment in each new teacher hire; consequently, selecting the wrong teacher can be a devastating error (Goldhaber, Grout, & Huntington-Klein, 2014).

Making accurate predictions about the quality of a teacher during the selection process is very difficult because "... traditionally accepted measures of teacher quality such as experience and years of schooling, are only weakly linked with student achievement; they are not reliable proxies for effective teaching" (Hanushek & Rivkin, 2007, p. 70). Teacher selection practices in schools have not evolved at the same rate as hiring practices in other industries. A survey conducted by the Center for American Progress revealed that teacher selection often singularly focuses on a review of application materials such as resume and transcripts rather than performance-based or predictive measures (Konoske-Graf, Partelow, & Benner, 2016).

Despite these difficulties, selection science research provides direction regarding the elements of a hiring process that are most predictive of success during employment. Because no one tool is perfect, and the traditional interview alone is quite unreliable (Buckley, Norris & Wiese, 2000; Deli & Vera, 2003; Hamdani, Valcea, & Buckley, 2014; Macan, 2009) the literature advises that a selection system with multiple steps be developed and utilized. Moore (2017) identified three essential elements for an effective hiring process: (1) identification of key qualifications and prior experience necessary for success, (2) a structured interview process aligned to identified skills and abilities essential for success on the job and creation of interview questions and acceptable answers in order to assess whether the candidates possess the identified attributes, and (3) addition of other predictive elements so that decisions are not based solely on paper screening and interviews.

2.1.1 Key Qualifications for Teachers

The first step of an effective hiring process as identified by Moore (2017) involves the identification of key qualifications and prior experience necessary for success at a particular job. Current literature indicates that traditional teacher qualifications have little influence on classroom achievement. Buddin and Zamarro (2009) found no correlation between the level of education, grade point average, and teacher licensure test scores on student achievement. Similarly, Chingos and Peterson (2011) found that neither holding a college major in education nor acquiring a master's degree is correlated with elementary and middle school teaching effectiveness, regardless of the university at which the degree was earned.

Given the lack of connection between teacher background characteristics and student outcomes, educators would be wise to move beyond these types of factors and instead focus on clear and consistent criterion reflected in the growing body of teacher quality research. Through meta-analysis, Hattie and Zierer (2018) identified the most influential factor associated with teacher success to be a consistent focus on one's impact upon student learning. Schmid (2018) similarly found that teachers who held the belief that all students could learn, as well as the belief that student learning was a direct reflection of their teaching practice were likely to have a higher impact on student outcomes than those who did not hold these beliefs. The same study also confirmed the findings of DuFour, DuFour and Eaker (2008) who proposed that being engaged in one's professional learning, including collaboration with colleagues and using student data to drive instruction, was a characteristic of high impact teachers. Identifying key teacher characteristics before the selection process creates a shared vision for all who are involved (Moore, 2017). Once the key teacher qualities have been identified, a process to reliably measure them must also be developed.

2.1.2 Structured Interviews

The traditional employment interview is the most commonly used tool for the selection of employees in industries and organizations across the United States (Crosby, 2000) and the field of education is no exception, as most principals rely heavily on interviews as an essential source of information regarding a candidate (Cannata, Rubin, Goldring, Grissom, Neumerski, Drake, & Schuermann, 2017). Despite its popularity, the traditional interview has long been known to be among the most unreliable elements of the selection process in any industry (Moore, 2017) and is particularly problematic in education because it offers minimal opportunity to accurately assess a teacher's pedagogical skills (Engel, 2013). Traditional conversational interviews are unreliable in part because of the interviewer's tendency to focus on issues that are disconnected from day to day success in the actual job including the appearance of the interviewee (Friedman, 2014). Researchers have also noted that interview success is often determined by a candidate's confidence, eye-contact, enthusiasm, and ability to sell one's self (Joyce, 2008).

The validity and reliability of the interview can, however, be significantly improved through the addition of elements of structure (Moore, 2017). Through meta-analysis, Lavashina, Hartwell, Morgeson, and Campion (2014) reported six essential elements of structured interviews:

- job analysis used to create questions;
- identical questions asked of each candidate;
- variety of question formats including situational questions based on past behavior;
- individual answers rated with a predetermined scale and
- presence of anchor answers;
- trained interviewers.

Adding structure to an interview significantly increases the correlation of interview performance to job performance. Through meta-analysis, Schmidt and Hunter (1998) determined that the correlation of traditional interview performance to actual job performance is only .38; however, the addition of these elements of structure increased the correlation to .52.

The previously mentioned assumption of the unique nature of teaching has been recently refuted by Harris & Rutledge (2010), who found considerable similarity between teacher characteristics that predict effectiveness and the characteristics that predict effectiveness for similarly complex occupations. Intellectual ability and experience were found to be predictors of success, whereas personality and level of education were not. Educational leaders who persist in the belief that research from other fields does not apply to teaching may become over-reliant on and overconfident in teacher hiring methods that are not highly predictive of teacher success.

2.2 Potential Impact of Principal Confidence on Teacher Selection

The phenomenon of confidence in one's ability to perform or understand tasks with little background knowledge was examined in a series of four studies by Cornell Researchers Justin Kruger and David Dunning in 1999. Their theory, known as The Dunning Kruger effect, suggests that people tend to overestimate their skills and abilities and in fact, those who are less competent in a given area are the most likely to be overconfident because they are unaware of how much they do not know. Those with low skill experience what Dunning and Kruger (1999) refer to as the dual burden. Their lack of competence creates a situation in which they not only overestimate their skills, but the same incompetence precludes them from the realization of their error.

Over the last two decades, the Dunning Kruger effect has been studied by numerous researchers in a variety of contexts to explain behavior in the workplace, student behavior in schools, and even how people make decisions in their personal lives. The literature includes journal articles that invoke the Dunning Kruger effect to explain a variety of societal issues such as the anti-vaccine movement (Motta, Callaghan, & Sylvester, 2018), extreme partisanship (Anson, 2018), and even the behavior of high school athletic coaches (Sullivan, Ragogna, & Dithurbide, 2018). Despite the popularization of the theory, there remain important and understudied potential ramifications in many fields, particularly employee selection practices that rely on subjective measures to determine the candidate's fit for a job. Blackburn (2006) found that hiring managers' confidence in their skills were impacted by their positive bias in recalling successful job searches and disregarding hiring failures. This particular study was limited to hiring managers in the field of business, and although similar studies have not been replicated in educational settings, it may be the case that principal overconfidence in their skill and recollection of only hiring successes negates the perceived need for consideration of research based hiring practices.

3. Method

3.1 Participants

Participants were recruited via link to an electronic survey on the Qualtrics platform that was emailed to principals in five states in the southern region and five states in the western region of the United States. Email addresses were gathered from publically available documents published by state departments of education. In most cases, the e-mail lists were assembled by state departments of education at the beginning of the school year, and by spring there were personnel changes that caused the lists to be somewhat out of date, which resulted in undeliverable e-mails and e-mails delivered to personnel that were no longer principals. Also,



many school district e-mail systems categorized surveys as spam and filtered them so that employees did not receive them in inboxes. The researcher was also notified of several large districts that do not allow employees to fill out surveys unless prior approval had been granted through the school district's own internal review processes.

In total, 9,433 e-mails were delivered to principals in Georgia, Alabama, North Carolina, South Carolina, Arkansas, California, Oregon, Washington, New Mexico, and Utah. One thousand eight surveys were completed, which created a response rate of 10.7% based on a convenience sample.

Fifty percent of participants identified that they were located in a rural school, 33% in a suburban school, and 17% in an urban setting. Thirty-three percent reported that they had been a principal for 0-3 years, 27% for 4-7 years, 13% for 8-10 years, and 27% for 11 years or more. Forty-six percent reported that they were elementary principals, 18% middle school, 26% high school, and 9% identified as principals of a K-8 school. Forty-five percent indicated that their school was located in a county-wide K-12 district, 29% in a city-wide K-12 district, 13% in a K-12 unified district serving multiple cities but that does not adhere to county borders, 4% in a high school only district, and 8% in an elementary school only district.

3.2 Instrumentation

The survey questions were written based on the research questions of this study as well as an extensive review of existing research on the topics of teacher quality, teacher selection processes, and best practices in employee selection processes. Survey and question construction was guided by Cresswell and Cresswell (2018). A pilot survey was e-mailed to 20 volunteer participants who were either current or former principals. Revisions to the survey were made based on feedback and suggestion of those who participated in the pilot.

The survey included 42 multiple choice type questions, which requested information on the demographics of the school and the process used to hire teachers. A total of eight survey questions were directly related to this study. Data were self-reported, but bias is limited because the anonymous participants had no stake in the outcome and nothing to gain or lose by reporting any data.

The first survey question relevant to this study pertained to the elements of the selection process utilized in the principal's school. In order to determine if hiring processes included elements that research identifies as likely to predict future performance, the question asked, "Which elements are regularly included in your teacher selection process?" Answer choices included, "research-based screening assessment," "traditional interview with a principal and/or assistant principal," "research-based predictive interview that results in measurable data," "panel interview that includes teachers or other staff members," "panel interview that includes parents," "interview with board members," "demonstration lesson," "writing sample," "reference checks," "interview with superintendent," and "phone interview."

Four questions were included in the survey to determine if principals include elements of structure in teacher interviews. The first question asked, "What portion of the interview questions are developed before the first interview?" Answers choices were "all of the



questions," "some of the questions," and "none of the questions." The second question asked, "During the interview, how often are identical questions asked of those being interviewed for the position?" Answer choices were "always," "about half the time," "sometimes," and "never." Principals also responded to the question, "Are interview questions designed to identify teacher qualities that are known through research to be predictive of high performance?" Answer choices were "yes," "no," and "not sure." The final question designed to determine the presence of structured interview elements was, "Do interviews result in measurable data?" Answer choices were "yes," "no," and "not sure."

In order to test if the final selection of teacher candidates were based on qualities known through previous research to be associated with effective teachers, principals were asked, "How important are each of the factors below in the final selection of which applicant is offered a teaching position?" Principals rated "experience," "content knowledge," "certification," "master's degree," "grade point average," "ability to collaborate with colleagues," "ability to build relationships with students," "ability to ensure student growth," "research-based qualities known to be predictive of high teacher performance," and "measurable data from predictive interviews" on a Likert type scale with the options of "extremely important," "very important," "moderately important," "slightly important," and "not at all important."

Two survey questions were designed to elicit an understanding of participants' experience with teacher selection training and their confidence in their employee selection skills. The first question was, "What type of training have you received regarding the selection of high-quality teachers?" Answer choices were "my district provides regular training on research-based selection methods," "I have been trained to administer predictive interviews that generate measurable data," "teacher selection was covered in a graduate or leadership certificate program," "I have attended workshops or conferences about personnel selection," and "none." Finally, principals were asked, "How confident are you in your ability to hire high-quality teachers?" Answer choices were "extremely confident," "very confident," "moderately confident," "slightly confident," and "not at all confident."

3.3 Analysis

Survey results were analyzed and reported descriptively. The analysis was performed using Qualtrics and SPSS software to generate the frequency of responses, valid percentages for each of the survey questions, and standard deviations.

4. Results

In order to determine the presence of research-based elements in teacher selection processes, principals were asked to choose all responses that applied to the question, "What elements are regularly included in your teacher selection process?" Table 1 includes the responses for each of the identified elements.



Table 1. Elements included in the teacher selection process		
Element	Count	Percent
Research-based screening assessment	75	2.93%
Traditional interview with a principal and/or assistant principal	563	21.98%
Research-based predictive interview that results in measurable data	29	1.13%
Panel interview that includes teachers or other staff members	589	22.99%
Panel interview that includes students	31	1.21%
Panel interview that includes parents	53	2.07%
Interview with school board member	23	0.90%
Demonstration lesson	175	6.83%
Writing sample	110	4.29%
Reference checks	648	25.29%
Interview with superintendent or asst. superintendent	106	4.14%
Phone interview	160	6.25%
Total	2562	100.00%

Table 1. Elements included in the teacher selection process

The results indicated that principals put a strong emphasis on interviews conducted by an administrator. Over 28% of the total responses were in the categories of an interview with a principal, assistant principal, or superintendent. Principals also favored panel interviews with a single candidate and groups of interviewers. Over a quarter of the total items selected on this question included the phrase "panel interview." Principals also reported the regular use of reference checks in their hiring processes. Selection process elements that mentioned "research" were among the least selected items. "Research-based screening assessment" received only 2.93% of the total responses and "research-based predictive interview that results in measurable data" received only 1.13% of the total responses.

Four survey questions were designed to determine if principals utilized components of structured interviews with high predictive power in their teacher selection processes. These questions were asked to both determine levels of use of best practices as identified by the literature, as well as to verify if the percentage of principals who reported using "research-based predictive interviews that result in measurable data" aligned with the percentage of those who could identify the actual components of structured interviews.

When principals were asked, "What portion of the interview questions are developed prior to the first interview?" Eighty-one percent of principals answered "all of the questions," 18% answered "some of the questions," and .57% answered "none of the questions." Principals were also asked, "During the interview, how often are identical questions asked of those being interviewed for the same position?" Eighty-seven percent answered "always," 5% answered "about half the time," 5% answered "sometimes," and 3% answered "never." The next question asked, "Are interview questions designed to identify teacher qualities that are



known through research to be predictive of high performance?" Seventy percent of principals indicated "yes," 9% indicated "no," and 21% replied, "not sure." Finally, principals answered the question, "Do interviews result in measurable data?" Forty-three percent of principals indicated "yes," 38% indicated "no," and 19% indicated "not sure."

Principals responses indicated an understanding of the value of a consistent set of questions for each candidate that were prepared before the interview. Most principals also believed that the interview questions that they developed were aligned with teacher quality research; however, they were less clear about whether their interviews resulted in measurable data, with an almost even split between yes and no and almost 20% who were not sure.

In order to determine if principals made final the selection of teacher candidates based on qualities known through research to be associated with effective teachers, participants were asked, "How important are each of the factors below in the final selection of which applicant is offered a teaching position?" The results are shown in Table 2.

Influence	Mean	Extremely	Very	Moderately	Slightly	Not at all
	(SD)	Important	Important	Important	Important	Important
Experience	2.47	139	198	225	82	20
	(1.05)	20.93%	29.82%	33.89%	12.35%	3.01%
Content knowledge	1.76	280	281	92	10	2
	(.77)	42.11%	42.26%	13.89%	1.50%	.30%
Certification	1.49	422	175	52	10	4
	(.75)	63.65%	26.40%	7.84%	1.51%	.60%
Masters' degree	3.81	9	39	218	199	198
	(.97)	1.36%	5.88%	32.88%	30.02%	29.86%
Grade point average	3.95	5	32	159	258	207
	(.90)	.76%	4.84%	24.05%	39.03%	31.32%
Ability to collaborate	1.57	370	239	35	12	8
with colleagues	(.78)	55.72%	35.99%	5.27%	1.81%	1.20%
Ability to build	1.32	490	150	21	1	5
relationships with						
students	(.62)	73.46%	22.49%	3.15%	.15%	.75%
Ability to ensure student growth	1.95	241	285	93	26	20

Table 2. Influences of the final selection of teacher candidate

The areas rated as most important to principals were "ability to build relationships with students" with a mean score of 1.32, "certification" with a mean score of 1.49, and "ability to

collaborate with colleagues" with a mean score of 1.57. Each of these responses also had the lowest variability. The areas of least importance to principals when hiring a teacher were "GPA" with a mean score of 3.95, and "masters' degree" with a mean of 3.81. "Measurable data from predictive interviews" with a mean score of 3.25, "research-based qualities known to be predictive of high teacher performance" with a mean score of 2.65, and "ability to cause student growth" were rated as less important than other factors.

In order to determine the level of teacher selection training that principals possess, survey participants were asked to check all responses that applied to the question, "What kind of training have you received regarding the selection of high-quality teachers?" The response "my district provides regular training on research-based selection processes" was selected by 12.28% of participants, 13.74% selected "I have been trained to administer predictive interviews that generate measurable data," 27.47% selected "teacher selection was covered in a graduate or leadership certificate program," 29.66% selected "attended workshops or conferences about personnel selection," and 16.86% selected "none." Results indicated that principals were most likely to have received teacher selection training during a graduate course or from a workshop rather than training provided by their district office and very few had received specific training to utilize predictive, structured interviews.

Principal confidence was measured with the question, "How confident are you in your ability to select high-quality teachers?" Twenty-nine percent of principals reporting feeling "extremely confident," 55% of principals reported feeling "very confident," 15% of principals indicated "moderately confident," .75% of principals reported feeling "slightly confident," and .15% of principals indicated feeling "not at all confident."

5. Discussion

5.1 Research-Based Teacher Selection Practices

Principals indicated that employment interviews were the most utilized element of teacher selection processes, with over 28% of responses that included a scenario with one candidate and one interviewer. Interviews with one candidate and several interviewers were also a heavily used strategy with over 25% of responses that included the phrase, "panel interview." These findings confirm past research that identifies interviews as the most relied upon source of information for principals as they consider teacher candidates (Cannata, Rubin, Goldring, Grissom, Neumerski, Drake, & Schuermann, 2017). This result was expected, but problematic, given that the traditional interview is among the most unreliable elements of selection processes in any industry, including education (Moore, 2017; Engel, 2013). Conversely, selection process elements that mention "research" were among the least selected items. "Research-based screening assessment" received only 3% of the total responses and "research-based predictive interview that results in measurable data" received only 1% of the total responses, suggesting that principals are either not aware of personnel selection research, not trained to implement research-based approaches, or that they simply choose not to implement the research-based elements that would significantly increase the validity, reliability, and predictability of the selection process.

5.1.1 Structured Interviews

In order to gather information about specific interview procedures, principals responded to



survey questions designed to determine if one or more elements of structure were used in interviews, even if principals did not necessarily identify their process as "research-based." Responses indicated that principals were likely to incorporate some of the most basic elements of structure, but not as likely to implement elements with more complexity that are likely to require specific training. Almost 82% of principals indicated that their interview questions were developed prior to the interview, and just over 87% of principals indicated that the same set of questions were asked to all candidates.

Results were less consistent when principals were asked if interview questions were specifically designed to identify teacher qualities that are known through research to be predictive of high performance. This question was asked, in part, to test the results from the earlier question that asked if principals utilized "research-based interviews predictive interviews that result in measurable data." These two survey questions asked for similar information from the principals and yet, 70% of principals indicated that they believed their questions were designed to identify teacher qualities that are known through research to be predictive of high performance and 21% were not sure compared to only 1% who identified that they use "research-based predictive interviews that results in measurable data." Also, in contrast to the 1% who identified that they use research-based predictive interviews that result in measurable data. Thirty-seven percent of principals indicated that their interviews did not result in measurable data, and 19% were unsure.

The presence of some of the most basic elements of structured interviews suggests that principals may have had some training in the development of effective interviews or that they mimic other interview processes in which they have been involved. This finding also suggests that many teacher interviews are slightly more reliable than a traditional conversational interview, but still not as predictive of teacher success as they would be if they included all of the elements of structure.

The fact that principals tend to utilize a few, but not all of the elements of structure creates a missed opportunity to hire the most effective teachers early in their careers. Teachers do become more effective over time, (Harris & Rutledge, 2010; Staiger & Rockoff, 2010) but their level of effectiveness early in their career is predictive of performance later in their career (Atteberry, Loeb, & Wykoff, 2015). Most teachers improve over time, but the gap between the high and low performing teachers does not close and so choosing the most effective teachers early in their career is of the utmost importance.

5.1.2 Qualities of Effective Teachers

In order to determine if principals made job offers to teacher candidates based on qualities known through research to be associated with effective teaching, principals were asked to rate a variety of factors. The qualities with the highest ratings were "the ability of a teacher to build a relationship with students" and "ability to collaborate with colleagues." Both of these themes are strongly supported in the teacher quality literature as being factors closely related to student achievement. (Hattie, 2011; Hattie & Zierer, 2018; DuFour, DuFour, & Eaker, 2008). Principals also rated "certification" as an essential element in their decision-making process. Teacher certification is a flat credential that is earned one time and then renewed and has not been proven to substantially impact the effectiveness of the teacher (Hanna & Gimbert, 2011),

but, understandably, principals valued certification due to legal and policy requirements of states and districts. Similar to the other findings in this research, measurable data from predictive interviews and research-based qualities known to be predictive of high teacher performance were relatively unimportant to principals, which again may indicate a lack of training or understanding of these types of selection methods. The ability to cause student growth, which is the primary purpose of a school, was also identified as a consideration of relative low importance to principals.

The survey responses reflect the conventional belief that many principals have a preference for hiring candidates with pleasing personal skills, such as enthusiasm and communication, rather than specific professional characteristics such as knowledge of effective instructional strategies and creating student growth (Broberg, 1987; Dunton, 2001). Also, the beliefs in the importance of collaboration with colleagues and the ability to build relationships with students reflect more recent teacher quality research. This is a hopeful result that may suggest a shift in desired teacher characteristics that have been influenced by the era of accountability and policy revisions regarding highly qualified teachers. Accountability creates pressure for school leaders to seek teachers with skill, experience, and intelligence in order to drive student achievement (Harris, Rutledge, Ingle, & Thompson, 2010). Other researchers have noted that recently some school districts have begun to consider complex systems of teaching standards, domains of practice, and competence in their hiring practices (Casey & Childs, 2017) but then may not utilize selection practices to measure those desired characteristics in the selection process reliably.

5.2 Principal Training

Survey responses indicated that in general, principals had received little training regarding effective teacher selection techniques. Those who were trained were most likely to have received instruction at a workshop or conference setting or in a graduate course, rather than through longer-term sustained training and coaching offered by their school district. Training delivered in the workshop format is likely to be a one-time experience without follow up coaching. Similarly, instruction in a graduate program is also likely to be minimal and in some cases, many years in the past. It was alarming that almost 17% of principals indicated that they had never received any training and yet hopeful that 92% of principals indicated a belief that they would benefit from more training.

Results indicated that principals need a more complete understanding of both the qualities of effective teachers most likely to cause student growth and the processes most likely to identify the candidates who possess those qualities. Only a small percentage of principals reported participation in district offered training, which creates an opportunity for leadership preparation programs to ensure that effective teacher selection is covered in courses and that at least a minimal level of competence is demonstrated by candidates. Furthermore, leadership preparation programs may find it necessary to review the course content, so that teacher selection reflects the most current research from the field of education as well as selection science rather than a reliance on traditional interviews and application review.

5.3 Principal Confidence

Overall, principals reported a high level of confidence in their ability to select high-quality

teachers. Ninety-nine percent of principals indicated that they were at least moderately confident in their ability, and 85% of principals indicated that they were extremely or very confident. This level of confidence may not be warranted given the level of hiring based on characteristics known to be predictive of effective teaching and research-based selection processes. This confidence may be detrimental to principals' abilities to select the best candidate objectively and may result in unintentional discrimination. "People assume that their thoughts and beliefs are, by virtue of being theirs, valid and therefore worthy of being acted upon" (Uhlmann & Cohen, 2017, p. 208). Confidence in decisions based on intuition is not limited to educators. Slaughter and Kausel (2014) went so far as to say that hiring managers "cling" to intuition during employee selection processes despite evidence the development of reliable selection tools (p. 75).

Questions remain regarding the impact of principals' confidence in their ability to amend hiring processes to incorporate research-based elements. David Dunning (2011) suggests that those who are better educated are better able to distinguish what they do not know from what they know. The solution to over-confidence may lie in additional training and exposure to research-based hiring methods. In a survey of 5,000 human resources professionals, Rynes, Colbert, and Brown (2002) found that practitioners were more likely to agree with selection science research findings when they had industry-specific training and certification and read when they actively read the academic literature.

6. Conclusion

The data revealed that principals generally do not use research-based teacher selection techniques and therefore, several important areas for further study emerged. Specifically, the question of why principals do not use research-based selection techniques was not examined by this study. Further research should focus on barriers and principals' concerns that prevent the use of structured interviews and predictive screening tools. Principals, do however, seek candidates with skills to collaborate with their colleagues and to build relationships with students. Both of these skill sets are identified as essential in the teacher quality literature. Principals did not identify the ability to cause student growth as one of the most essential teacher qualities when making hiring decisions.

Also, this study found that principals are confident in their hiring practices, but it does not draw a connection between that confidence and the lack of implementation of research-based best practice hiring practices. Future studies may consider whether principals' confidence in their own skills specifically impacts decisions about how the hiring process is structured. There may also be a need to synthesize the vast literature on teacher effectiveness to accurately determine which of the qualities that are empirically linked to improving student outcomes can be measured using predictive screening tools and structured interview questions.

Despite the questions that remain for researchers, there are immediate and practical implications for practitioners. Ensuring that every student learns at high levels is a complex task that requires skillful teachers and a change to the status quo in most schools; therefore, hiring the best possible teachers is an essential component of school improvement. One promising approach to reducing hiring bias and increasing the probability of hiring teachers with the ability to increase student learning significantly is to screen candidates for only the qualities that research has shown to be predictive of success and to add all of the elements of



structure that will increase the predictive nature of interviews. Practitioners can engage in action-based research in their schools and districts to determine if changing the hiring process by adding research-based elements increases their ability to select teachers with a high impact on student growth and to meet the demand for high-quality teachers in every classroom. Another implication for practitioners is the clear need for training designed to teach principals to effectively select candidates who will have the highest potential to impact student learning. This is also a clear call to action for higher education programs that prepare aspiring school leaders. Revising course work to include significant training to select high-quality teachers will impact the effectiveness of the principal and may well be the only selection training that the principal ever receives.

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