

Variation in the Willingness of Superintendents to Recommend
Hiring Alternatively Licensed Principals

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ABSTRACT

In many parts of the country principal candidates are being licensed through alternative pathways. Some view this movement as a plausible solution to the shortage of principals and inadequacy of principal preparation programs (Hess, 2003; Southern Regional Education Board, 2006; Thomas B. Fordham Institute, 2003). Others are insulted and threatened by the prospect of a person from a non-traditional background leading a school (Fenwick & Pierce, 2001). The debate as to whether or not these candidates possess the prerequisite skills and knowledge to effectively lead a school continues. But, will superintendents, as gatekeepers to school districts, afford these individuals the opportunity to prove their worth as principals?

In this study, superintendents' attitudes toward alternative licensure of school principals; past behaviors related to hiring alternatively licensed school personnel; attitudes toward specific alternatively licensed personnel; perceptions of the conditions in their school districts; anticipated concerns about hiring alternatively licensed principals; and the presence or absence of a clearly articulated induction program for new principals are used as predictors of superintendents' willingness to recommend hiring alternatively licensed principals to their school boards.

The composite model of attitude-behavior consistency and data from a qualitative study of 18 superintendents were the bases for the development of a theory. To test the theory, an on-line questionnaire, using Likert and Thurstone scaled items, was administered to 1200 randomly selected superintendents who were members of the

American Association of School Administrators (AASA) in 2005. Multiple regression analysis was used for the analysis of the quantitative data. Five of the 19 predictor variables were significant predictors of superintendents' willingness to recommend hiring alternatively licensed principals. The strongest relationship existed between superintendents' willingness to recommend hiring alternatively licensed principals and their perceptions of the instructional leadership ability of alternatively licensed principals. Other significant predictors were superintendents' past experiences hiring alternatively licensed principals, perceptions of the community acceptance of alternatively licensed principals, general attitude toward alternative licensure, and willingness to hire under the given definition. Superintendents displayed a low neutral (more unfavorable) score on the Thurstone scale, which means they view the employment of alternatively licensed principals slightly unfavorably.

DEDICATION

To my Mom

For your unconditional love and support. I think about you everyday and I miss you always. I'll always remember your smile, your stories, your strength, and your generosity. I love you mom, I love you a whole bunch.

ACKNOWLEDGEMENTS

I have been blessed and fortunate all my entire life. Rarely is one given the opportunity to formally acknowledge and thank those who have touched their life. I would like to take the next couple of pages and acknowledge people who have influenced me and helped me on my journey.

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CHAPTER 1

INTRODUCTION

Superintendents' willingness to recommend hiring alternatively licensed principals is the subject of this study. The context, purpose, research questions, and theory including identified variables, are the focus of this chapter.

Context of the Study

In many parts of the country principal candidates are being licensed through alternative pathways. Some view this movement as a plausible solution to the shortage of principals and inadequacy of principal preparation programs (Hess, 2003; Southern Regional Education Board, 2006; Thomas B. Fordham Institute, 2003). Others are insulted and threatened by the prospect of a person from a non-traditional background leading a school (Fenwick & Pierce, 2001). The debate as to whether or not these candidates possess the prerequisite skills and knowledge to effectively lead a school continues. But, will superintendents, as gatekeepers to school districts, afford these individuals the opportunity to prove their worth as principals? This is an effort to address this question by assessing and explaining the variation in superintendents' willingness to recommend hiring alternatively licensed principals.

A number of economic, social, and political forces are causing great turmoil in education and in the preparation of school principals. Among these are strict accountability for student achievement; increased demands on schools to solve social problems; insufficient funding, including the compensation of teachers and school leaders; shortages in some teaching, leadership, and geographic areas; shifts in expectations for teachers and leaders; increased diversity in community and student

populations; and an increasingly critical polity that seems impossible to please. Add the critical reports by such organizations as the Thomas B. Fordham Institute (2003), the Southern Regional Education Board (2003; 2006), and The Education Schools Project (Levine, 2005), and you have jobs that fewer and fewer quality candidates are willing to accept. The result is a shortage, if not in quantity, then in quality (Roza, Celio, Harvey, & Wishon, 2003). Such shortages cannot be tolerated in education. Schools must be staffed; children must be educated. Enter quick staffing solutions, particularly those that place bodies in classrooms and offices--long-term substitutes, emergency licenses, and alternative licenses, with the latter being promoted as a near panacea for both quantity and quality shortages of school personnel.

Definition of an Alternatively Licensed Principal

The term alternatively licensed principal is used in this report to describe an individual who has been licensed or certified as a K-12 school principal through an alternative pathway. Two alternative pathways were studied, one pathway is from inside education and one is from outside education.

Alternatively Licensed Principal From Inside Education

An alternatively licensed principal candidate from inside education is one who has been licensed or certified without receiving a master's degree in educational administration. These candidates have a master's degree in education, experience in education, but have not completed a university-based principal preparation program. These candidates could include, but are not limited to, guidance counselors, reading specialists, and department heads.

Alternatively Licensed Principal From Outside Education

An alternatively licensed principal from outside education is one who has been licensed or certified without receiving a master's degree in educational administration. These are candidates who have a master's degree in an area other than education, leadership experience outside education, no experience in education, and have not completed a university-based principal preparation program.

Alternative Licensure for Teachers

Non-traditional pathways to employment in education is not a novel idea. For several years now, teachers have entered the profession through alternative routes. Proponents of alternative teacher licensure (e.g., Goldhaber & Brewer, 2000; Owings, Kaplan, Nunnery, Marzano, Myran, & Blackburn, 2006; Levin, Honeggar, & Duncan, 2004; Thomas B. Fordham Institute, 1999) claim opening the doors will attract to education competent individuals from highly respected professions, minorities, and people who are willing to work in high-need districts and hard to staff schools. Some contend that beginning teachers with proficient knowledge (degree(s) attained) in a content area, especially math and science, are as prepared as their traditional counterparts (Goldhaber & Brewer, 1997; 2000). Others argue that traditional licensure routes provide teachers with the preparation they need to successfully face and overcome the challenges of the 21st century (Darling-Hammond, 2000; Darling-Hammond, Berry, & Thoreson, 2001; Laczko-Kerr & Berliner, 2003). Whether or not you agree with alternative licensure of educational personnel, its roots within education are deeply set. In 2007, all 50 states and the District of Columbia had some form of alternate route for teacher licensure (Feistritz, 2007).

Alternative Licensure for School Principals

University-based principal preparation programs are under constant scrutiny. Some believe such institutional barriers in universities as promotion and tenure and the demand for refereed publications have produced research and preparation programs that are remote from the serious problems and important questions in K-12 education (Thomas B. Fordham Institute, 2003; Levine, 2005; Southern Regional Education Board, 2003). They cite the limited collaboration between school districts and universities as a contributing factor, and they argue that those preparing future principals are often out of touch with the needs in schools. Others contend many professors of educational leadership received their degrees and were practicing leaders years earlier and are unfamiliar with the new roles and responsibilities of principals, thus their graduates are inadequately prepared to meet the demands of instructional leadership with which they will be faced (Farkas, Johnson, Duffett, Syat, & Vine, 2003). And, there is the notion in the minds of some critics (Southern Regional Education Board, 2003; 2006; Thomas B. Fordham Institute, 2003) that there are large numbers of potential leaders with fresh ideas, strong leadership skills, and high motivation at the doors of schools waiting for some alternative way of gaining access without taking those loathsome, irrelevant, non-substantive, and useless education courses.

These concerns and beliefs, along with the apparent *success* of alternative teacher licensure, have engendered support and enthusiasm for alternative licensure of school principals. Over the last decade, state departments of education, local school districts, private interest groups, and some universities and colleges have trained and licensed principals through alternative routes (Hale & Moorman, 2003). Large urban districts such

as New York City, Chicago, and Baltimore are preparing principals through a program called *New Leaders for New Schools* (New Leaders for New Schools, n.d.), which allows highly skilled, non-educators to become licensed principals. School districts are partnering with universities to tailor principal preparation to the needs of the district (Virginia Department of Education, n.d.). Some principal development programs now reside in schools of management or public administration within their universities, and focus preparation on policy, communication skills, and school reform (Hale & Moorman, 2003; Levine, 2005; University of Virginia Partnership for Leaders in Education, 2005).

Most of the states that have alternative licensure have not seen drastic shifts in hiring those from outside education (Herrington & Wills, 2005). Although Florida enabled local school districts to set licensure policies for principals in 2002, most districts still maintain traditional policies; rarely has an individual from outside education been placed in the principalship. One district uses an alternate route to expedite the placement of high quality teachers into the principalship rather than seeking outsiders (Herrington & Wills, 2005). Michigan is the state with the least stringent licensure policy; most school districts set their own licensure requirements (Anthes, 2004). A recommendation has been made to reinstate traditional principal licensure (McGuire, 2002). A reason cited for the recommendation was principals from nontraditional backgrounds lacked the knowledge and skills necessary to successfully lead a school.

Many stakeholders have invested considerable time, effort, and money into alternative licensure programs. But, are these programs a premonition of things to come or a passing fad? This study is one of several being conducted to understand how policy makers and other stakeholders view the alternative licensure of school principals. All are

focused on predicting the willingness to behave of these stakeholders when they are directly confronted with a decision about supporting or not supporting the hiring of an alternatively licensed school principal. In this case, the stakeholder is the superintendent of schools. Superintendents of schools are the gatekeepers to the principalship; they often participate in the selection process, and they recommend employment of principals to school boards.

Purpose

This study is the second part of a two-part study. The purpose is to report on the viability, as expressed by superintendents, of alternative routes to principal licensure as a solution to the principal shortage, regardless of whether it is a quantitative or qualitative shortage. If superintendents' are willing to recommend hiring alternatively licensed principals, then the principal applicant pool could increase in both quantity and quality. My interest is in assessing and explaining the variation in superintendents' willingness to recommend hiring alternatively licensed principals.

Research Question

The first part of this study was conducted by Kufel, Gaudreau, and Parks (2004; 2005) to identify variables that influence superintendents' willingness to recommend hiring alternatively licensed principals. This study is an expansion to a larger sample of superintendents nationwide. In the expansion, the research question of interest was: What variables explain the variation in superintendents' willingness to recommend hiring alternatively licensed principals?

A Theory of Superintendents' Willingness to Recommend Hiring Alternatively Licensed Principals

The study of beliefs, attitudes, values, behaviors, and the interrelationships among these has a rich history in sociology, psychology, and social psychology (Olson & Maio, 2003; Petty, Wegener, & Fabrigar, 1997; Shaw & Wright, 1967). This history emanates from the human desire to understand behavior and its antecedents and consequences. Theoretical and research activity throughout the last century (Olson & Maio, 2003; Petty, Wheeler, & Tormala, 2003; Shaw & Wright, 1967; Wood, 2000) has produced both knowledge and methods that are useful in such applied fields as education, political science, economics, and social work.

As the research and understanding of attitudes has matured, so, too, has the definition of attitudes. Olson and Maio (2003) defined attitudes “as tendencies to *evaluate* objects favorably or unfavorably” (p. 1). Eagly and Chaiken (1998) defined attitude as an individual’s willingness to engage in a specific behavior. It is the latter definition that is used in this research.

The Composite Model of Attitude-Behavior Consistency

Eagly and Chaiken (1993; 1998) developed the composite model of attitude-behavior consistency to predict specific behaviors from specific attitudes toward those behaviors and other influencing variables. Among these variables are (a) past behaviors, (b) attitudes toward the target, (c) attitudes toward the specific behavior, (d) utilitarian outcomes such as rewards and punishments, (e) normative outcomes such as approval or disapproval from others, and (f) self-identity outcomes such as implications for one’s self image (Eagly & Chaiken, 1993; 1998). This model (see Figure 1) was useful in the qualitative study to construct questions and identify variables that may contribute to superintendents’ expressed willingness to recommend hiring alternatively licensed

principals. However, during the collection and analysis of the qualitative data (see Kufel et al., 2005) the original theory was revised based on the data (see Figure 2). This post-analysis theory was utilized in the development of an instrument for a national quantitative study to assess and explain superintendents' willingness to recommend hiring alternatively licensed principals.

Definitions of Constructs

The definitions of the constructs in the theory are in Table 1. The table contains the name of each construct, the constitutive definition of the construct, and the operational definition of the construct.

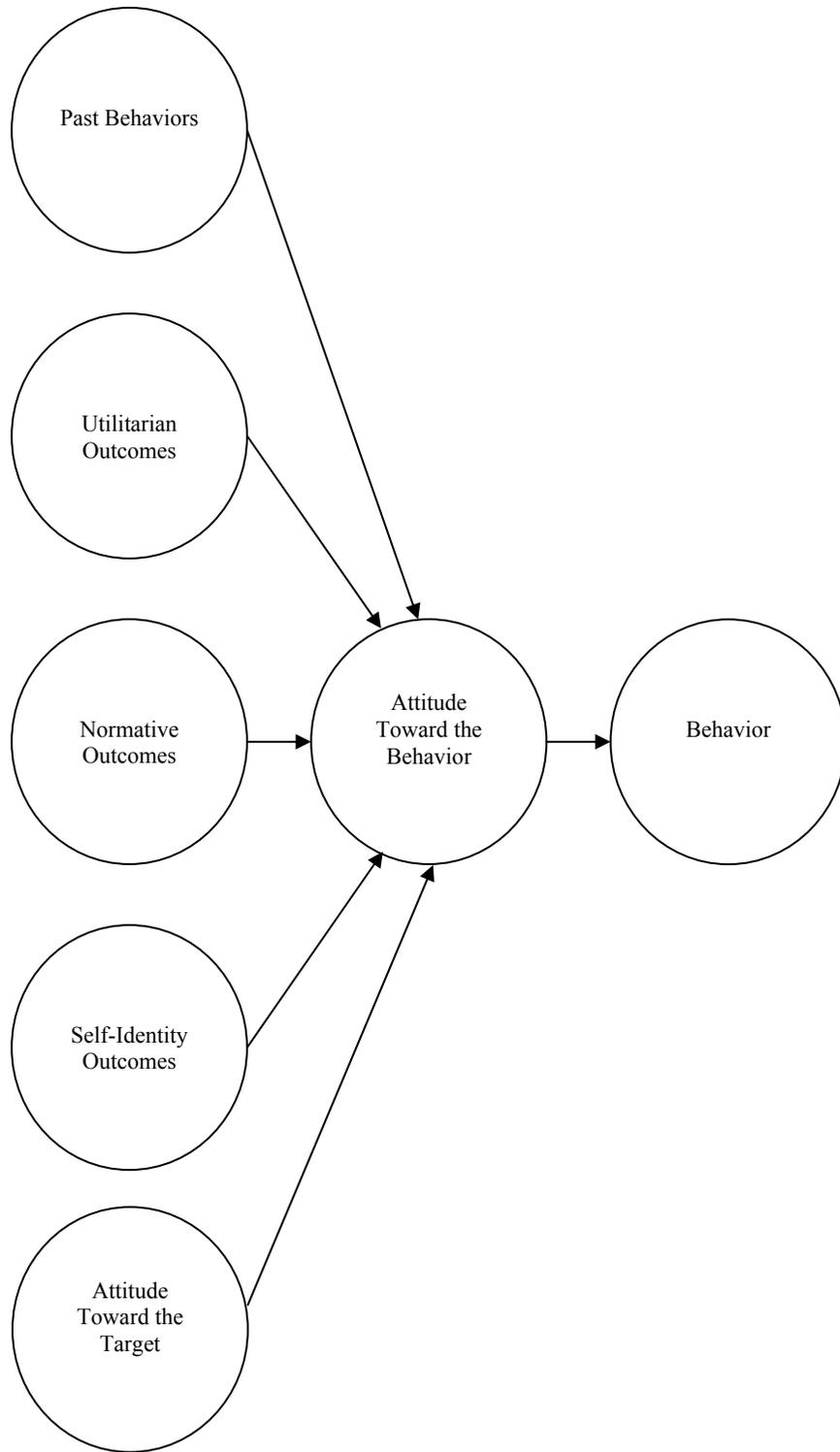


Figure 1. Composite model of attitude-behavior consistency for predicting specific behaviors (Eagly & Chaiken, 1998).

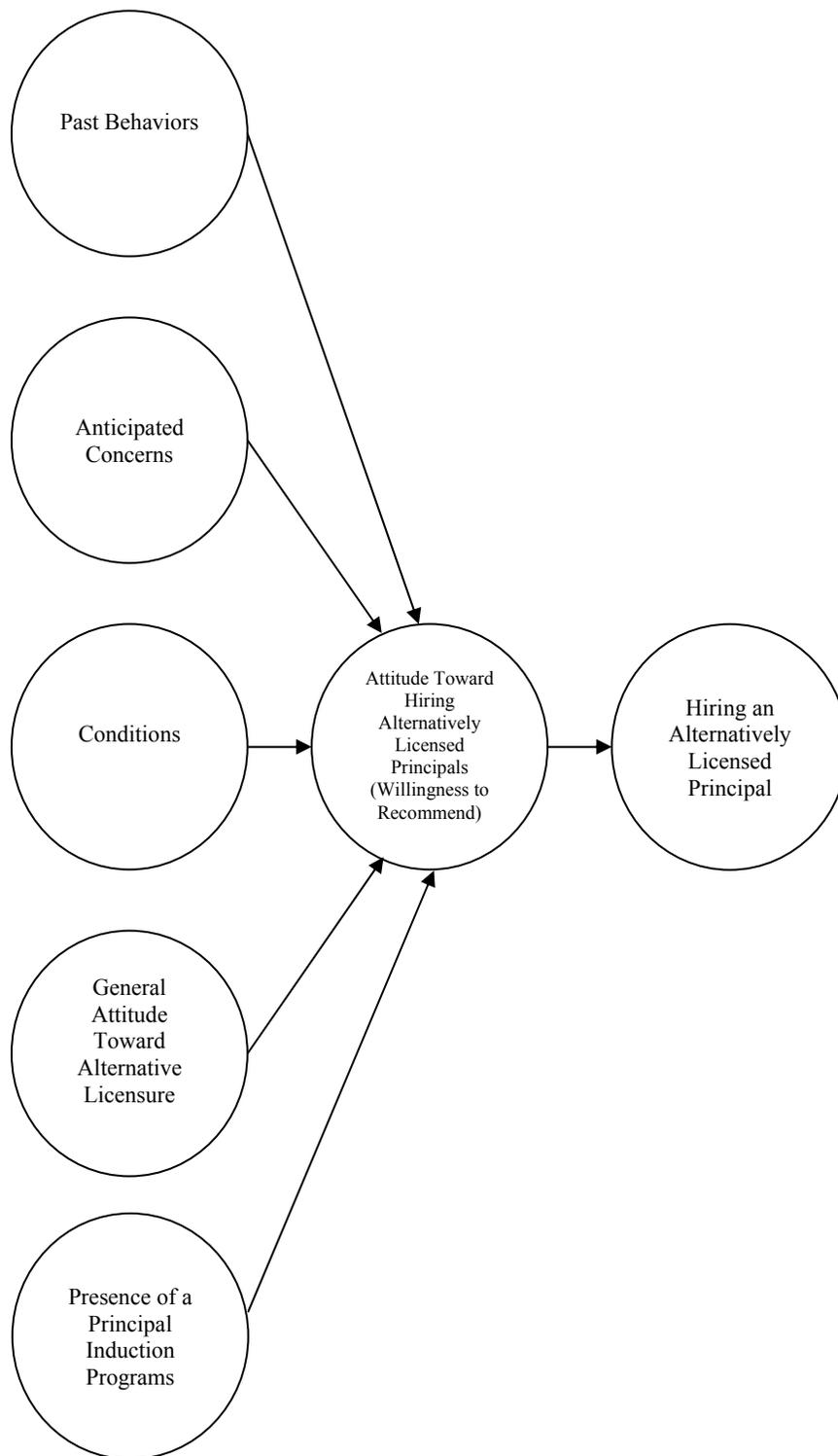


Figure 2. Kufel's theory for explaining superintendents' willingness to recommend hiring alternatively licensed principals.

Table 1

Definitions of Constructs

Construct	Constitutive definition	Operational definition
Hire alternatively licensed principal	The superintendent would be willing to recommend hiring an alternatively licensed principal under the given definition.	Respondent checked “yes” or “no” for Item 75 of the questionnaire.
State of employment	The state the respondent currently works in as superintendent.	Respondent entered the state he or she works in for Item 76 of the questionnaire.
Years as superintendent	The number of years the respondent has served as a superintendent.	Respondent entered his or her number of years experience including the current school year for Item 77 of the questionnaire.
District classification	The classification (rural, rural/suburban, suburban, suburban/rural, or urban) the respondent believes his or her district is.	Respondent checked “rural,” “rural/suburban,” “suburban,” “suburban/urban,” “urban,” or “other” for Item 78 of the questionnaire.
Capacity to hire alternatively licensed principals	The capacity of the respondent, based on state regulations, to hire individuals who have been alternatively licensed.	Respondent checked “yes” or “no” for Item 79 of the questionnaire.
Number of schools	The number of schools in each respondent’s school district.	Respondent entered the number of schools in his or her school district for Item 80 of the questionnaire.

(table continues)

Table 1 (*continued*)

Construct	Constitutive definition	Operational definition
Numbers of students	The number of students in each respondent's school district.	Respondent entered the number of students in his or her school district for Item 81 of the questionnaire.
Alternatively licensed assistant principals	Superintendent would support hiring an alternatively licensed assistant principal	Respondent checked "yes" or "no" for Item 82 of the questionnaire.
General attitude toward alternative licensure	A favorable, unfavorable, or ambivalent evaluation expressed by a superintendent toward alternative licensure in education.	The mean score of items 17R, 24, 49R, 56, 59, and 66R on Kufel's Willingness to Hire Alternatively Licensed Principals questionnaire.
Quality of principal applicant pool	Superintendents' perceptions of the condition of the applicant pool, with respect to the quality of principal candidates.	The mean score of items 18, 30, 34, 44R, and 50R on Kufel's Willingness to Hire Alternatively Licensed Principals questionnaire.
Quantity of principal applicant pool	Superintendents' perceptions of the condition of the applicant pool, with respect to the quantity of principal candidates.	The mean score of items 39R, 46R, 62, 67, and 70R on Kufel's Willingness to Hire Alternatively Licensed Principals questionnaire.
Specific leadership needs	The leadership needs of the superintendent's school district.	The mean score of items 23, 26, 37, 47, 55, and 63 on Kufel's Willingness to Hire Alternatively Licensed Principals questionnaire.

(table continues)

Table 1 (*continued*)

Construct	Constitutive definition	Operational definition
Community fit	Superintendents' perceptions of the importance placed on whether or not a principal fits the surrounding community.	The mean score of items 43, 51, 54, 68, and 72 on Kufel's Willingness to Hire Alternatively Licensed Principals questionnaire.
Quality of traditional principal preparation programs	Superintendents' perceptions of the quality of traditional principal preparation programs in universities or colleges.	The mean score of items 21, 33R, 41R, 45, 60, and 65 on Kufel's Willingness to Hire Alternatively Licensed Principals questionnaire.
Leadership ability	Superintendents' perceptions of the general leadership ability of alternatively licensed principals.	The mean score of items 16, 28, 36, 52, 58, and 74 on Kufel's Willingness to Hire Alternatively Licensed Principals questionnaire.
Ability to lead instruction	Superintendents' perceptions of the instructional leadership ability of alternatively licensed principals.	The mean score of items 15, 20, 32, 40, 42, 48R, and 61R on Kufel's Willingness to Hire Alternatively Licensed Principals questionnaire.

(table continues)

Table 1 (*continued*)

Construct	Constitutive definition	Operational definition
Community acceptance	Superintendents' perceptions of the school community's views on alternatively licensed principals. The school community includes teachers, students, classified staff, partners, parents, other administrators, and community members generally.	The mean score of items 22, 27R, 29, 38R, 53, and 69 on Kufel's Willingness to Hire Alternatively Licensed Principals questionnaire.
Educational context	Superintendents' perceptions of the conditions in the work of the principal that may affect the alternatively licensed principal's ability to do the job.	The mean score of items 19R, 35R, 57R, 64R, 71R, and 73 on Kufel's Willingness to Hire Alternatively Licensed Principals questionnaire.
Induction program	The presence of a clearly articulated induction program to train alternatively licensed principals.	The response to item 14 on Kufel's Willingness to Hire Alternatively Licensed Principals questionnaire.
Past behaviors hiring alternatively licensed teachers	Successful experiences hiring alternatively licensed teachers.	The response to item 12 on Kufel's Willingness to Hire Alternatively Licensed Principals questionnaire.
Past behaviors hiring alternatively licensed principals	Successful experiences hiring alternatively licensed teachers.	The response to item 13 on Kufel's Willingness to Hire Alternatively Licensed Principals questionnaire.

(table continues)

Table 1 (*continued*)

Construct	Constitutive definition	Operational definition
Superintendents' willingness to hire alternatively licensed principals	Superintendents' willingness to recommend hiring alternatively licensed principals.	The cumulative score, on items 1 through 11 in Section 1 of Kufel's Willingness to Hire Alternatively Licensed Principals questionnaire; divided by the number of affirmative responses.

Note. R = recoded item because of negative wording. See Appendix H for the content of the items and Kufel's Instrument to Measure the Predictor Variables Hypothesized to be Associated with Variation in the Willingness of Superintendents to Recommend Hiring Alternatively Licensed Principals

General Attitude Toward Alternative Licensure and Willingness to

Recommend Hiring Alternatively Licensed Principals

The general attitude superintendents hold toward alternative licensure is one variable that is hypothesized to influence their willingness to recommend hiring alternatively licensed principals. Wicker (1969) found that many theories related to attitude-behavior consistency are predicated on the assumption that general attitudes influence behavior; that is, positive attitudes toward a target result in positive outcomes and negative attitudes toward a target result in negative outcomes. This explanation works well when the referent is typical and fits the stereotype one has developed based on the general attitude (see Figure 3). In a study conducted by Kufel, Gaudreau, and Parks (2005), several of the superintendents interviewed displayed extremely negative attitudes toward alternative licensure and were not willing to recommend hiring alternatively licensed principals. Conversely, several superintendents who conveyed positive attitudes toward alternative licensure viewed hiring these individuals more

favorably than those with negative attitudes. The majority of the superintendents interviewed were ambivalent toward alternative licensure. Other variables influenced these participants.

When a referent is atypical, behavior might contradict the general attitude toward the referent (Lord, Lepper, & Mackie, 1984). Early researchers found weak correlations when they inappropriately tried to predict specific behaviors from general attitudes. For example, general attitudes toward a certain ethnic group did not accurately predict behavior toward an individual member of the ethnic group in a specific setting at a specific time (Ajzen & Fishbein, 1977; Kraus, 1995; Olson, & Maio, 2003). Therefore, I expect general attitudes held by superintendents about alternative licensure routes for educators will not consistently predict, alone, a superintendent's attitude toward hiring a specific individual who has been alternatively licensed. Such is the case as portrayed by Kufel et al. (2004; 2005), when superintendents who were at first adamantly opposed to hiring a person from outside the education profession, cited, when probed, skills, experiences, circumstances, and characteristics of candidates under which they might consider an alternatively licensed principal.

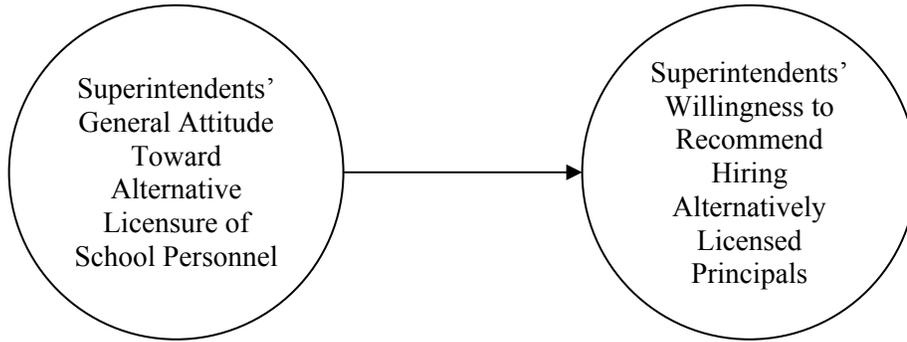


Figure 3. The relationship between superintendents' general attitude toward alternative licensure of school personnel and their willingness to recommend hiring alternatively licensed principals.

*School District Conditions and Candidate Characteristics Related to
Superintendents' Willingness to Hire*

Another hypothesis is that superintendents' willingness to recommend hiring alternatively licensed principals is influenced by current conditions in their districts, hypothetical conditions that might be on the horizon, and specific characteristics an alternatively licensed principal may possess. Many superintendents believe alternatively licensed principals would be a viable option if they were experiencing a shortage of quality candidates, felt the candidate fit the community, or were trying to fill a specific leadership need where a unique skill set would be beneficial (Kufel et al., 2005).

Shortage of Applicants and Willingness to Hire

A shortage of principal applicants is a condition under which superintendents would be more likely to consider an alternatively licensed principal candidate. Superintendents and some reform advocates (SREB, 2003; 2006; Thomas Fordham Institute, 2003) view an alternative route to principal licensure as a possible option due to shortages of quality principal candidates and foundering schools (see Figure 4). Several of the superintendents interviewed by Kufel et al. (2004; 2005) were experiencing a shortage of applicants, while others have observed a noticeable decline in both the quantity (see Figure 5) and quality of their applicant pools. Many of the superintendents participating in the study stated they would hire or consider hiring these individuals if there was a shortage in either quantity or quality (Kufel et al., 2005).

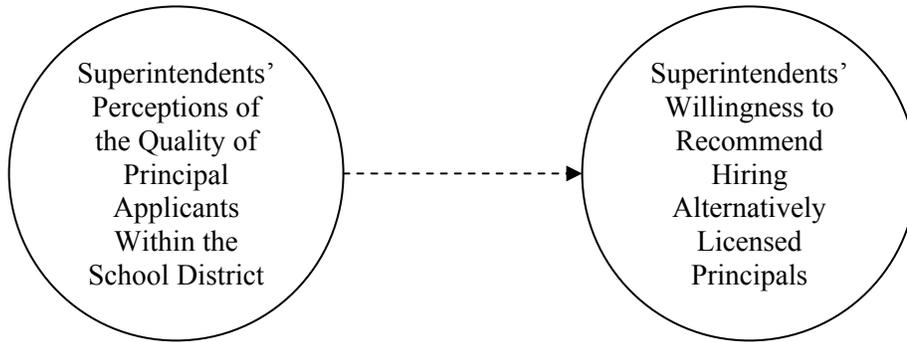


Figure 4. The relationship between the superintendents' perceptions of the quality of principal applicants within the school district pool and the superintendents' willingness to recommend hiring alternatively licensed principals.

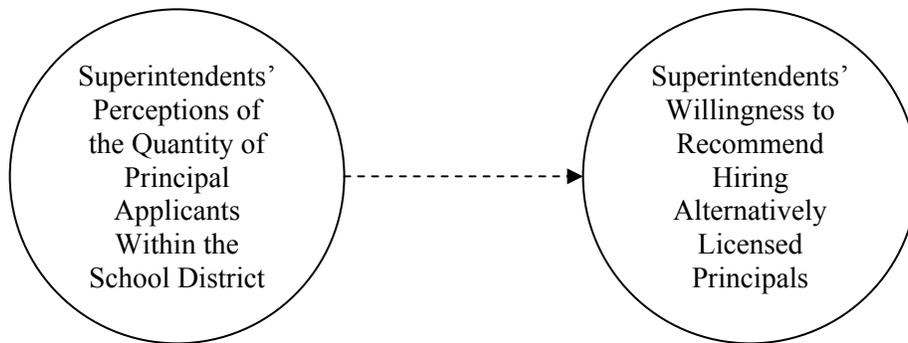


Figure 5. The relationship between the superintendents' perceptions of the quantity of principal applicants within the school district pool and the superintendents' willingness to recommend hiring alternatively licensed principals.

Specific Leadership Needs and Willingness to Hire

The ability of an alternatively licensed principal to fill a specific leadership need within the district is a condition under which superintendents would consider these applicants as viable candidates (see Figure 6). Some superintendents believe alternatively licensed principals without experience in education may possess expertise that could be more beneficial than a traditional principal to a specialty school or magnet school (Kufel et al., 2005). For example, “participants believed candidates from outside education could bring their expertise and outside connections to a school that focused instruction around a single topic such as engineering” (Kufel, et al., 2004, p. 20). If an alternatively licensed principal possessed specific leadership characteristics needed in a school, then a superintendent would be more willing to recommend hiring this individual.

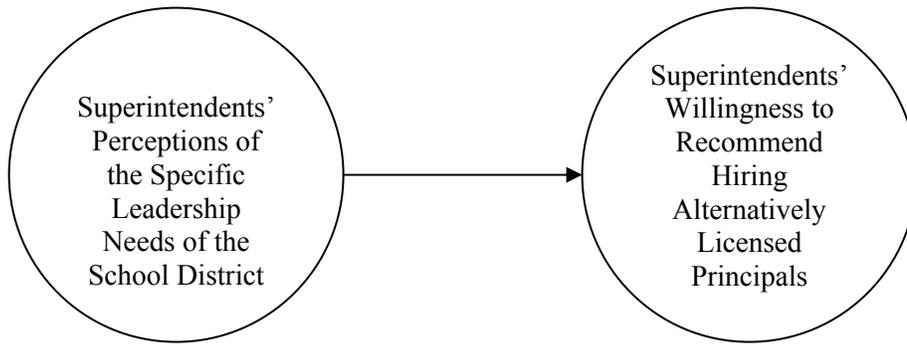


Figure 6. The relationship between the superintendents' perceptions of the specific leadership needs of a school district and superintendents' willingness to recommend hiring alternatively licensed principals.

Community Fit and Willingness to Hire

Superintendents will be more likely to recommend hiring an alternatively licensed principal candidate if they believe the individual would be a better fit for their community than a traditional principal candidate (see Figure 7). An example given by a superintendent follows:

I could see that in a very politically conservative community ... [that favors] any number of alternative education practices--home school, private school, charter school--that that particular group may find it appealing that a non-educator lead their neighborhood school. The parental mind-set is that non-educators would certainly be more effective at this than educators. (Kufel et al., 2005, p. 19)

Conversely, if a superintendent does not believe an alternatively licensed principal would fit the surrounding community, then it would be unlikely the individual would be hired.

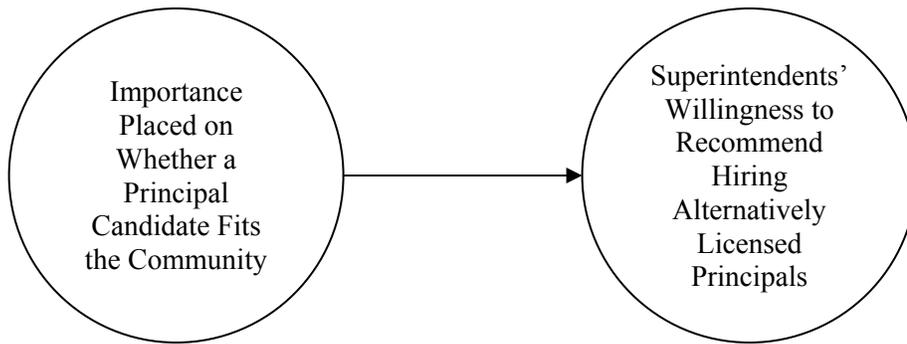


Figure 7. The relationship between the importance placed on whether a principal candidate fits the community and superintendents' willingness to recommend hiring alternatively licensed principals.

Superintendents' Perceptions of Traditional Principal Preparation Deficiencies and Willingness to Hire

An alternatively licensed principal candidate would be considered a viable option if a superintendent believed there were drastic deficiencies in traditional principal preparation programs at the university level (see Figure 8). Traditional preparation programs and the candidates they produce have many critics both inside and outside the educational community. These critics list numerous deficiencies that include little collaboration between higher education and K-12 education, too much theory-driven instruction, professors with little or no administrative experience, the absence of instruction regarding urban leadership, and the inability to prepare instructional leaders, to name a few (Hale & Moorman, 2003; Levine, 2005; Thomas Fordham Institute, 2003). Some superintendents believe traditional candidates are not equipped to meet the needs of schools within their district. Several stated they did not believe the traditional preparation programs trained principals to meet the growing demands an urban principal faces. Subsequently, these superintendents thought alternative routes, which might include principal preparation through the school district, could be tailored to meet the individual needs of their district and better prepare individuals for the rigors of the principalship (Kufel et al., 2005).

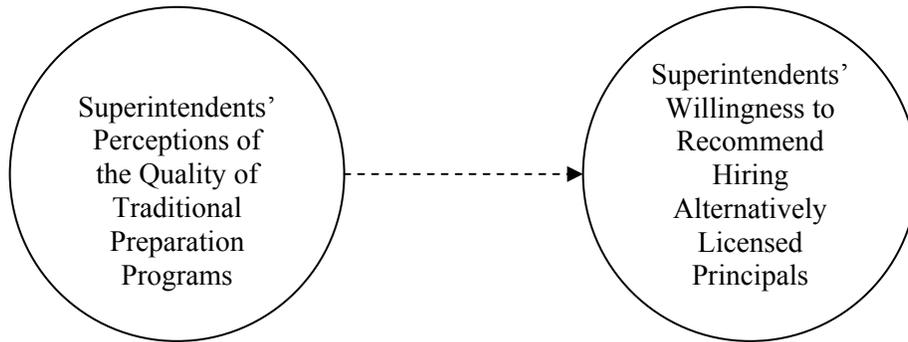


Figure 8. The relationship between superintendents' perceptions of the quality of traditional preparation programs and superintendents' willingness to recommend hiring alternatively licensed principals.

Leadership Ability of Candidates and Willingness to Hire

It is hypothesized that superintendents would be willing to recommend hiring alternatively licensed principal candidates if they possessed exemplary leadership skills and successful leadership experiences (see Figure 9). Participants in one study expressed interest in prior work-related leadership experiences and skills that could forecast future success. Superintendents believed these characteristics and experiences could catapult alternatively licensed principal candidates to the top of the applicant list; but, unless they displayed the capacity to successfully lead an organization, they would be removed from consideration (Kufel et al., 2005). One superintendent said, “I think that perhaps individuals could have experiences outside the education community that could lend themselves to a successful experience as a principal” (Kufel, et al., 2005, p. 22). Leadership skills of importance to the superintendents included “the ability to create and steward a vision, interpersonal skills, flexibility, and the ability to create a sense of teamwork and collaboration” (Kufel et al., 2005, p. 21).

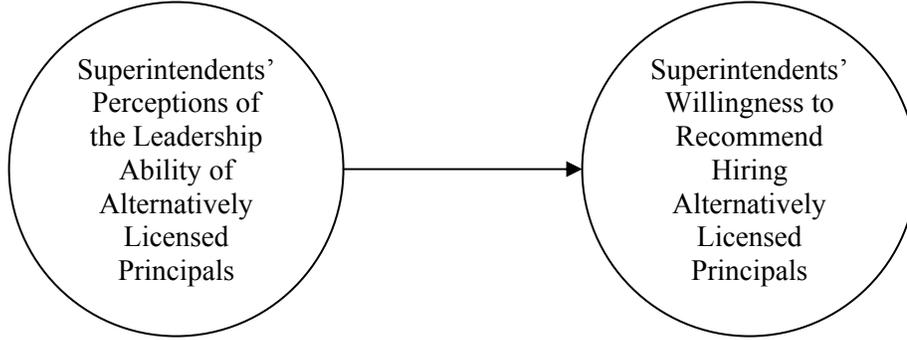


Figure 9. The relationship between the superintendents' perceptions of the leadership ability of alternatively licensed principals and superintendents' willingness to recommend hiring alternatively licensed principals.

*Anticipated Concerns of Superintendents Related to
Superintendents' Willingness to Hire*

Superintendents expressed concerns about the ability of alternatively licensed principals to deal with the special problems and issues of managing and leading schools (Kufel et al., 2005). Two of the concerns were the ability of alternatively licensed principals to lead instruction and the ability of alternatively licensed principals to understand and work within the educational context. A third concern was community acceptance of alternatively licensed principals. If superintendents have such concerns about the performance of alternatively licensed principal candidates, then they will be less willing to recommend hiring these individuals.

Ability to Lead Instruction and Willingness to Hire

The shift in the principalship from school manager to instructional leader has been well documented over the past several years (Hale & Moorman, 2003; Levine, 2005; Thomas Fordham Institute, 2003). The principal's role focuses on increasing student achievement through supervision and evaluation of teachers, involvement in curriculum development, data analysis, and all other aspects of instruction and learning, in addition to the usual managerial responsibilities. The school principal is viewed as the catalyst behind school improvement and academic achievement, but is also perceived as the reason a school underachieves. In a study by Kufel et al. (2005), the ability of alternatively licensed principals to effectively lead instruction for student achievement was the major concern articulated by superintendents; therefore, the capability to serve as a school's instructional leader was included as a predictor variable. When this concern is

prevalent, superintendents are less willing to consider hiring alternatively licensed principals (see Figure 10). One superintendent discussed his feelings:

My first thought when I hear somebody's coming from an outside position is that they may not have enough knowledge of that [education]. We can't fumble or have a person take a year or two or three years to be brought up to speed, and have the school suffer for that long. (Kufel et al., 2005, p. 23)

The majority of superintendents studied by Kufel et al. (2005) expressed a similar sentiment: Instructional leadership is paramount to the role of a principal. If a superintendent is not confident an alternatively licensed principal has the capacity to become an instructional leader, then the superintendent will not be willing to recommend hiring the candidate.

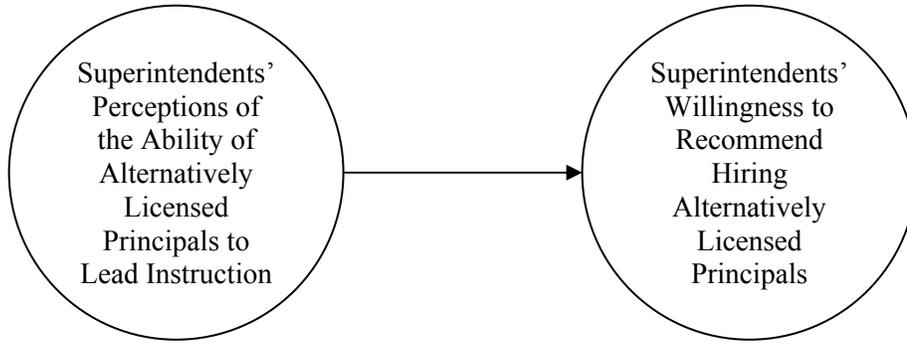


Figure 10. The relationship between superintendents' perceptions of the ability of alternatively licensed principals to lead instruction and superintendents' willingness to recommend hiring alternatively licensed principals.

Superintendents' Perceptions of the Community Acceptance of Alternatively Licensed Principals and Willingness to Hire

Several superintendents in the qualitative study expressed concern over the perceptions of members in the educational community surrounding the school where an alternatively licensed principal would be placed (Kufel et al., 2005). The superintendents were cognizant they would have to factor pressure from constituents into their final decision on hiring an alternatively licensed principal. Among the constituents mentioned, teachers and staff were the groups most often cited by the superintendents, but additional concern arose over parents, community members, and other administrators. If constituents within an educational community were accepting of alternatively licensed principals, then a superintendent would be more willing to recommend hiring these candidates. However, if this individual was not perceived as a credible school leader by a group, especially teachers, then superintendents would be reluctant to recommend hiring (see Figure 11).

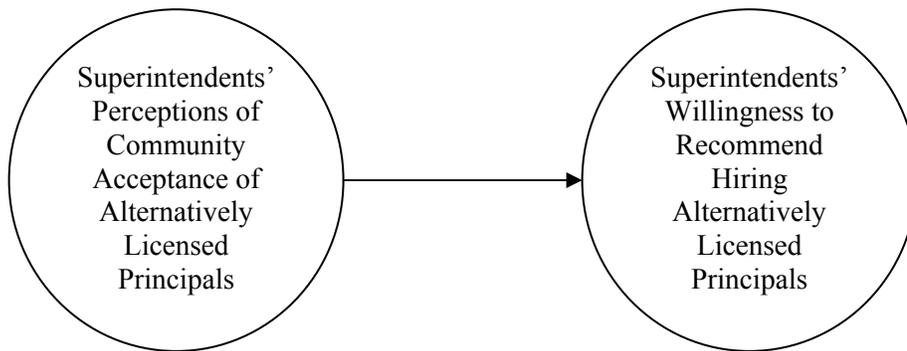


Figure 11. The relationship between superintendents' perceptions of community acceptance of alternatively licensed principals and superintendents' willingness to recommend hiring alternatively licensed principals.

Educational Context and Willingness to Hire

Another concern included as a predictor variable is superintendents' perceptions of the alternatively licensed principal's ability to understand and work within the educational context. This was listed by superintendents as a major challenge for those entering the principalship from the private sector (Kufel et al., 2005). The impact a principal has on the surrounding community and the fundamental role education has within that community are foreign concepts to those not familiar with the education profession. One superintendent stated, "I think one of the biggest challenges would be their newly-found awareness of how central education is within a particular community" (Kufel et al., p. 24). This centrality brings great responsibility to the principal. Decisions principals make have a large impact on families and the community as a whole. If a superintendent believes a principal trained through an alternative method could handle these pressures, then they would be more willing to recommend hiring the candidate. However, if the prospect of leading a public school seems too daunting, then the employment of this individual would be unlikely (see Figure 12).

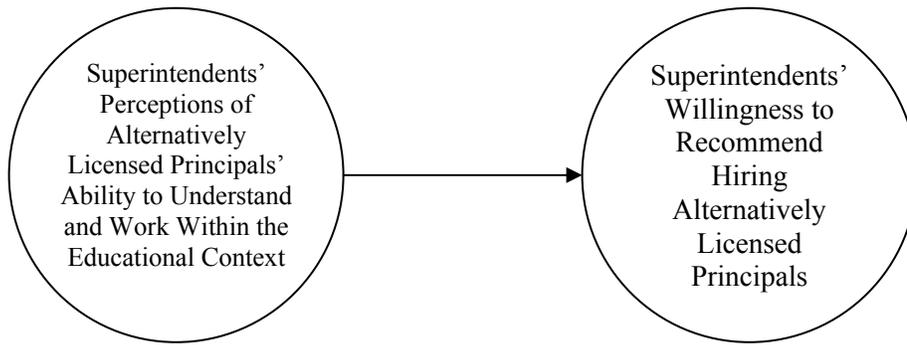


Figure 12. The relationship between the superintendents' perceptions of alternately licensed principals' ability to understand and work within the educational context and superintendents' willingness to recommend hiring alternately licensed principals.

The Presence of a Principal Induction Program and Willingness to Hire

The presence of a clearly articulated induction program is expected to influence superintendents' willingness to recommend hiring alternatively licensed principals. Superintendents cited the presence of an internal support system consisting of fellow administrators within the district, an internship, mentoring program, and coursework and professional development as integral components of an induction program (Kufel et al., 2005). The existence of such a program has the potential to ease the transition to the principalship for all newly hired principals, especially those without traditional training. If a quality induction program exists, superintendents would be more willing to recommend hiring alternatively licensed principal candidates (see Figure 13).

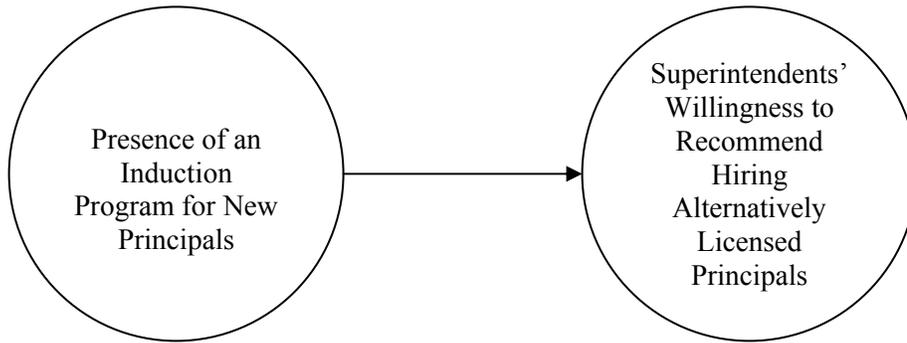


Figure 13. The relationship between the presence of an induction program for new principals and superintendents' willingness to recommend hiring alternatively licensed principals.

Past Experiences Hiring Alternatively Licensed Personnel and Willingness to Hire

Superintendents' past experiences hiring alternatively licensed personnel is the last variable hypothesized to affect willingness to recommend hiring alternatively licensed principals (see Figure 14). Ouellette and Wood (1998) concluded from their meta-analysis of 64 studies related to past behaviors, attitudes, and future behaviors that conditioned or automatic responses form as a result of numerous past behaviors toward a given target. Researchers have discovered that behaviors performed frequently in a stable context are likely to be repeated in future decisions, which take place in similar contexts, because conscious decision making is no longer required (Bargh, 1989; Logan, 1989; Ouellette & Wood, 1998). These behaviors form habits, produce automatic responses, and serve as effective predictors of behavior or willingness to behave in a certain manner (Ouellette & Wood), especially when used to predict spontaneous daily routines. Thirteen of the studies reviewed used multiple regression designs to predict behavior from past behaviors, while controlling for other predictors. Eleven of the 13 studies revealed past behavior was a statistically significant predictor of future behavior.

Past behaviors have both direct and indirect effects on engagement in a specific behavior (Ouellette & Wood, 1998). Ouellette and Wood (1998) found the effects of past behaviors on future behaviors in decisions involving cognitive processes are mediated through intention to behave. The statistically significant correlation between past behaviors and intent to behave ($r = .40$) implies that future decisions are influenced by action or inaction in past decisions to behave. According to Ajzen's (1987) theory of planned behavior, when novel decisions requiring conscious deliberations are made, other

influencing variables must be included especially in contexts that are less stable or with behaviors that rarely occur.

Human resource directors and superintendents develop criteria for the purpose of recruiting and screening potential principal candidates. Past behaviors may bias the recruiting and screening process against alternatively licensed principals, thus disallowing the formation of an attitude toward these candidates and proceeding directly into behavior. Several superintendents interviewed by Kufel et al. (2005) admitted they had never considered an alternatively licensed principal for a job because they preferred traditionally licensed principals, they had had a surplus of quality candidates in their district, or they were prohibited from hiring these individuals because of state licensure regulations. If the context remains stable, then these superintendents may never have the opportunity to hire an alternatively licensed principal candidate.

Conversely, several participants in the study conducted by Kufel et al. (2005) had previous experience with alternatively licensed personnel, including principals. In some cases, alternatively licensed principals were trained and employed within the district; therefore, these participants viewed these individuals favorably. It was apparent these past experiences, either positive or negative, shaped superintendents' willingness to recommend hiring alternatively licensed principals.

A superintendent in a district that has an unstable context (high teacher turnover rates, transient populations, and high need student populations) or is rarely confronted with alternative licensure will have to make a conscious decision about hiring an alternatively licensed principal candidate because past behaviors have not been established. A superintendent's willingness to recommend hiring from this district will be

influenced by other variables in addition to past decisions to act or not. In such cases a superintendent would have to weigh the fit between the alternatively licensed principal candidate and the specific context of the school district.

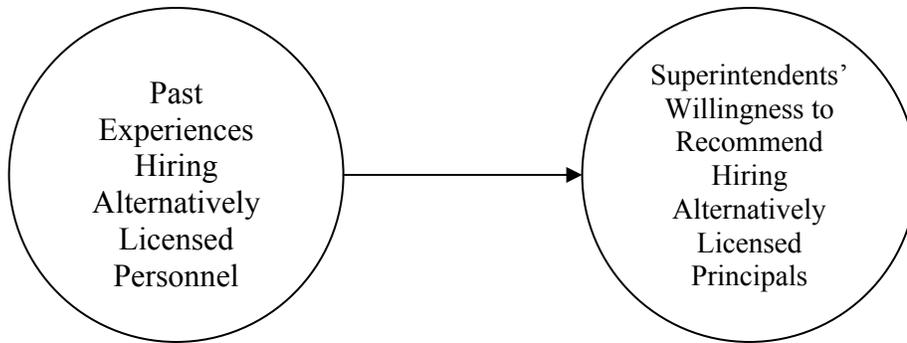


Figure 14. The relationship between past experiences hiring alternatively licensed personnel and superintendents' willingness to recommend hiring alternatively licensed principals.

Willingness to Hire and the Behavior of Hiring

Attitudes are strongly correlated to behaviors in certain circumstances. For example, “measures of specific attitudes (toward specific behaviors) predict specific behaviors” (Olson, & Maio, 2003, p. 315). Weak correlations have been found when general attitudes toward an object are used for prediction (Olson & Maio). For instance, if a superintendent hires an alternatively licensed principal, it can be assumed that the superintendent has a positive attitude toward the target--alternatively licensed principals. At the same time, this superintendent probably holds a positive attitude toward the behavior of hiring alternatively licensed principals. Many superintendents may hold positive attitudes toward alternative licensure for principals, but a variety of conditions, concerns, and barriers may prevent them from engaging in the behavior of hiring an alternatively licensed principal. Thus, these superintendents may exhibit a negative attitude toward the specific behavior of hiring an alternatively licensed principal.

The converse of the situation holds true. Several superintendents interviewed by Kufel et al. (2004; 2005) expressed general opposition toward hiring alternatively licensed principals, but could have been persuaded otherwise due to shortages of quality principal candidates, foundering schools, pressure from the surrounding community, and other factors. In such instances general attitudes toward alternative licensure do not solely or effectively predict behavior. Therefore, an attitude toward the specific behavior--the need to staff a school or pressure from a community--has been found to be a better predictor of a behavior (Olson & Maio, 2003) than a general attitude toward the target (see Figure 15).

As the popularity of alternative licensure of principals intensifies, superintendents will have to make more decisions regarding the recruitment and selection of non-traditional candidates. Superintendents “are the gatekeepers to the principalship” (Kufel et al., 2004, p. 2). The hiring of alternatively licensed principal candidates will be influenced by the general attitudes superintendents hold about hiring alternatively licensed principals, superintendents’ past behaviors, the conditions within the school district, the anticipated concerns superintendents have about the decision, and superintendents’ willingness to recommend hiring an alternatively licensed candidate as shown in Figure 2.

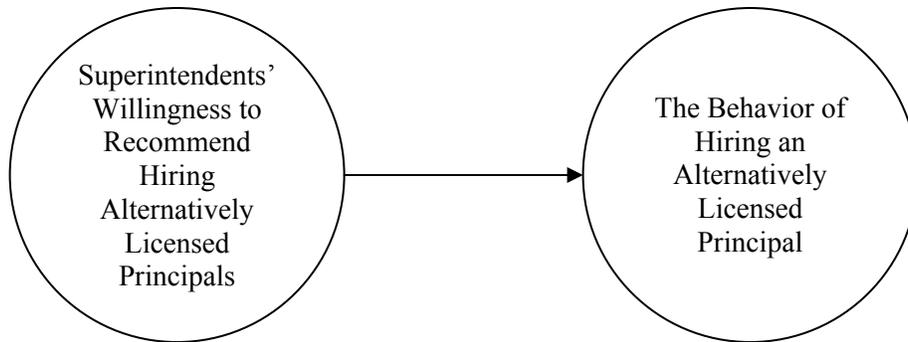


Figure 15. The relationship between superintendents' willingness to recommend hiring alternatively licensed principals and the behavior of hiring an alternatively licensed principal.

CHAPTER 2

METHODS

The design of the study, including the population and the development of the measures, is the focus of this chapter. Procedures for collecting and analyzing the data are presented.

Population

Public school superintendents who were members of the American Association of School Administrators (AASA) in 2005 are the population. The executive director of AASA was emailed to obtain contact information on members who were superintendents. The executive director responded with an Excel spreadsheet of 6,189 superintendents with names, school districts, phone numbers, and school addresses; however, email addresses of each member were not permitted due to privacy issues.

Sample

Each member of AASA was coded with a numerical representation from one to 6,189. A random numbers generator (<http://www.random.org/nform.html>) was used to select two groups of 600 superintendents each. Numbers that appeared in duplicate were counted once. As a whole, the sample for the study consisted of 1200 randomly selected superintendents. The inside education definition was randomly assigned by a flip of the coin to 600 superintendents, and the outside education definition was assigned to the remaining 600. Thirty-four percent (178/526) useable responses were received for the inside education group. Thirty-eight percent (202/533) useable responses were received for the outside education group. Overall, 36% (380/1059) useable responses were received.

Data Collection

The development of specific measures and construction of the data collection instruments are explained in this section. Content validation, reliability, and scoring methods are presented.

Instruments

Kufel et al. (2005) conducted a qualitative study to identify domains and related variables that may predict superintendents' willingness to recommend hiring alternatively licensed principals. Five domains and 12 related predictor variables were identified in the qualitative study. The domains are (a) general attitude toward alternative licensure (one predictor variable), (b) conditions under which superintendents would consider hiring an alternatively licensed principal (five predictor variables), (c) concerns about the performance of alternatively licensed principals (three predictor variables), (d) presence of a clearly articulated induction program for new principals (one predictor variable) (e) past behaviors with alternatively licensed personnel (two predictor variables). Two instruments were developed, one for the inside education definition of an alternatively licensed principal and one for the outside education definition of an alternatively licensed principal. All the items are the same on both instruments; only the directions for completing the instruments are different.

Measures were developed to assess the predictor variables and the criterion variable. Descriptions of Kufel's Likert-scales developed to measure the predictor variables, a set of supplemental non-scaled questions, and Kufel's Thurstone equal appearing interval scale measuring the willingness to recommend hiring alternatively

licensed principals are described in this section. Methods used for the collection of data follow.

Kufel's Measure of Superintendents' Willingness to Recommend Hiring Alternatively Licensed Principals

Thurstone's method of equal-appearing intervals and Likert's method of summated ratings were considered for scaling the criterion variable--superintendents' willingness to recommend hiring alternatively licensed principals. From the qualitative study (Kufel et al., 2005), it was ascertained that superintendents possess a great deal of variability in their attitudes toward hiring alternatively licensed principals. Many of the superintendents held ambivalent attitudes; however, several expressed extreme attitudes either favorably or unfavorably toward hiring alternatively licensed principals. Because Thurstone's method of equal-appearing intervals more accurately measures extreme attitudes than Likert's method of summated ratings (Aiken, 1996; Oppenheim, 1992; Roberts, Laughlin, & Wedell, 1999), Thurstone's method was chosen to scale superintendents' willingness to recommend hiring alternatively licensed principals.

Development of the measure. Over 90 items were developed from a variety of sources to measure the criterion variable. The items were developed to measure a continuum of superintendents' willingness to recommend hiring alternatively licensed principals (see Appendix A). Several items came from direct and indirect statements that superintendents participating in the qualitative study (Kufel et al., 2005) made about their views regarding alternative licensure of school principals. This study was the primary source for item development. In addition to the study, items were developed from discussions I had with my dissertation chair, formal and informal discussions with

education experts at international, national, and regional conferences and meetings; from the literature; and from my personal views regarding alternative licensure. Items were carefully reviewed to determine if they were associated with the concept of willingness to hire alternatively licensed principals and to assess their clarity. Revisions were made to items that were unclear or had a weak association with the dependent variable.

Problematic items were omitted.

Testing of the measure. The complete list of 91 items (see Appendix A) was given to a panel of 29 educational administrators who were purposefully selected to rate the items. The panel was comprised of superintendents, school-based administrators, and educational administration doctoral candidates. They placed each item into one of 11 categories. The categories ranged from items that expressed superintendents' lowest level of willingness to recommend hiring alternatively licensed principals (category 1) to items that expressed the highest level of willingness to recommend hiring alternatively licensed principals (category 11). The intervals between each category were regarded as equal distances apart, subjectively.

Once the experts rated each item, a frequency distribution was constructed based on the number of judges who placed each item in each category. Then, medians and semi-interquartile ranges were computed using SPSS 12.0. The medians were computed to aid in the formulation of equal-appearing intervals. The semi-interquartile ranges and standard deviations were computed to select items that had the least amount of variance.

The median is a measure of central tendency that permits the examination of item position, or in this case, item scale value, and ultimately allowed the construction of a hypothetical continuum to measure the criterion variable. The median represents the

middle point, or 50th percentile rank, in a distribution of scores. “A percentile rank represents the proportion of scores in a distribution that the given score is greater than or equal to” (Lane, n.d.). The semi-interquartile range for each item was a measure of the dispersion of an item across the 11-point scale. The semi-interquartile range is computed by halving the difference between the 75th percentile rank and 25th percentile rank for each item. Other measures of dispersion, such as range and standard deviation were considered, but the semi-interquartile range was chosen as the main measure of dispersion because it relates to the median, and it is the least affected by extreme scores or skewed distribution curves. Items with large amounts of dispersion were discarded because they possessed considerable variance and were considered too ambiguous. The inclusion of such items would contribute to the unreliability of the instrument.

Several items for each scale had small semi-interquartile ranges; therefore, standard deviations of each item were calculated as an additional analytical tool. The standard deviations were used in concert with the semi-interquartile ranges to determine which items had the least amount of variance. Items were selected to form the equal-appearing interval scale if they had the least variance, were equidistant apart (based on medians), and made sense conceptually.

Trial administration. Twenty-two items were selected, and the questionnaire was piloted with a sample of 30 superintendents in Virginia. Virginia Tech’s survey software at www.survey.vt.edu was used to administer the questionnaire. Ten superintendents responded to the questionnaire. Of the ten responses, eight of the superintendents completed the entire questionnaire. The respondents were given directives to agree or disagree with each statement about hiring alternatively licensed principals. The data were

exported from www.survey.vt.edu to Microsoft Excel, and the responses were analyzed to determine if any items needed to be revised or deleted based on inconsistencies. An example of an inconsistency would be a respondent who agreed with items on opposing sides of the willingness continuum. These items were not included in the final questionnaire. In addition, participants made comments regarding concerns they had about items directly on the questionnaire. These concerns included but were not limited to issues dealing with the clarity of the items. Items that were unclear were either omitted or revised based on the suggestions of the superintendents. For example, several superintendents thought some items were ambiguous and measured two thoughts. These items were omitted from the questionnaire. The final 11 items measuring superintendents' willingness to recommend hiring alternatively licensed principals are in Appendix B.

Scoring of the measure. The questionnaire was administered to the sample of superintendents representative of the nationwide population of public school superintendents who were members of the American Association of School Administrators in 2005. The respondents were prompted to agree or disagree with each statement regarding alternative licensure of school principals. A respondent's score was the sum of the scale values assigned to each item with which he or she agreed divided by the total number of affirmative responses. This mean represented the respondent's propensity, either favorably or unfavorably, toward hiring alternatively licensed principals. The mean scores obtained could range from one to 11, least favorable to most favorable, respectively.

Development of Kufel's Measures of Predictor Variables

The preliminary qualitative study conducted by Kufel et al. (2005) helped in the development of this study in several ways. The main purpose of the qualitative study was to aid in the construction of quantitative measures for the variables associated with superintendents' willingness to recommend hiring alternatively licensed principals. Specifically, the data from the qualitative study facilitated the identification of domains and related predictor variables, the development of the theory, and the formulation of specific items. The domains and the related predictor variables are in Table 2. The predictor variables identified from the qualitative study are the superintendents' perceptions of the supply, in terms of quality and quantity, of the principal applicant pool; leadership ability of alternatively licensed principals; quality of traditional principal preparation programs; importance placed on whether a principal fits the community; specific leadership needs of the school district; ability of alternatively licensed principals to lead instruction; community acceptance of alternatively licensed principals; and alternatively licensed principals' ability to understand and work within the educational context. Other variables identified were the general attitude of superintendents toward alternative licensure, the presence of an induction program for new principals, and the superintendents' past behaviors related to hiring alternatively licensed personnel.

The measures. Each predictor variable is measured from the perspective of the superintendent. Likert's (Likert, 1932) method of summated ratings was used to scale nine of the predictor variables. These variables were the superintendents' perceptions of the (a) community acceptance of alternatively licensed principals; (b) leadership ability

Table 2

Domains and Related Predictor Variables Influencing Superintendents' Willingness to Recommend Hiring Alternatively Licensed Principals

Domains	Related predictor variables
Conditions under which a superintendent would consider hiring alternatively licensed principals	The superintendent's perceptions of the quality of the principal applicant pool
	The superintendent's perceptions of the quantity of the principal applicant pool
	The superintendent's perception of the leadership ability of the alternatively licensed applicant
	The superintendent's perceptions of the quality of traditional principal preparation programs
	The importance the superintendent places on whether a principal fits the community
	The superintendent's perceptions of the specific leadership needs of the school district
Anticipated concerns a superintendent may have about the conditions alternatively licensed principal candidates would face as principals.	The superintendent's perceptions of the ability of an alternatively licensed principal to lead instruction
	The superintendent's perceptions of the community acceptance of alternatively licensed principals
	The superintendent's perceptions of the alternatively licensed principal's ability to understand and work within the educational context
A superintendent's general attitude toward alternative licensure	The general attitude of the superintendent toward alternative licensure
The availability of an induction program for principals.	The presence of a clearly articulated induction and training program for principals
A superintendent's past behaviors with regard to hiring alternatively licensed personnel.	The superintendent's past behaviors hiring alternatively licensed teachers.
	The superintendent's past behaviors hiring alternatively licensed principals.

of alternatively licensed principals; (c) ability of the alternatively licensed principals to lead instruction; (d) specific leadership needs of the school district, (e) quality of traditional principal preparation programs; (f) supply, in terms of quality and quantity, of the principal applicant pool (two variables); (g) alternatively licensed principals' ability to understand and work within the educational context; (h) importance placed on whether a principal fits the community; and (i) general attitude toward alternative licensure. Six items were developed to measure each of these nine predictor variables.

The remaining three variables were measured using dichotomous responses (yes/no). These variables were the presence of a clearly articulated induction program for new principals and the superintendents' past behaviors related to hiring alternatively licensed teachers and principals.

The same procedures were used to develop items, test the content validity and reliability, and score all of the Likert summated rating scales. The procedures follow.

Creating items. Items for each measure came from a variety of sources. The primary source was the data from the qualitative study conducted by Kufel et al. (2005). Some items for each of the nine predictor variables were generated from direct statements made by the superintendents who participated in the study. They gave specific examples to support their position on their willingness to recommend hiring alternatively licensed principals, and these examples were useful in crafting items. The analysis of the qualitative data prompted discussion and thought, which contributed to my personal knowledge and feelings regarding alternative licensure and further contributed to item development. Other sources contributed to the creation of items were the literature on alternative licensure in education and principal preparation, formal and informal

conversations, and presentations, given and attended, regarding alternative licensure and principal preparation.

Checking for content validity. As stated by Crocker and Algina (1986), “the purpose of a content validation study is to assess whether the items adequately represent a performance domain or construct of specific interest” (p. 218). Each item developed was subjected to a rigorous analysis by educators to determine whether it was closely associated with the definition of the variable it was purported to represent.

Initially, through the brainstorming process, over 300 items were developed to represent the seven of the Likert-scaled predictor variables. These variables were the superintendents’ perceptions of the supply, in terms of quality and quantity, of the principal applicant pool; the leadership ability of alternatively licensed principals; the quality of traditional principal preparation programs; ability of alternatively licensed principals to lead instruction; the community acceptance of alternatively licensed principals, and the alternatively licensed principals’ ability to understand and work within the educational context. The last variable was the general attitude of superintendents toward alternative licensure. One hundred twenty-eight items believed to best represent these predictor variables were carefully reviewed and revised before they were sent out to 32 education administration graduate students in June 2005 for the first content validation study. Sixteen of the graduate students rated 70 items related to superintendents’ perceptions of the leadership ability of alternatively licensed principals, ability of alternatively licensed principals to lead instruction, community acceptance of alternatively licensed principals, and alternatively licensed principals’ ability to understand and work within the educational context; the other 16 students rated 58 items

related to the remaining three predictor variables. The students were asked to place each item into a domain, rate the strength of association of each item with the specified domain, and rate the clarity of each item. Items classified correctly by 80% of the raters, rated 3.5 or above on the four-point association scale, and rated 2.5 or above on the three-point clarity scale were acceptable for inclusion in the questionnaire. Items that were unclear or that were not representative of the predictor variable they were supposed to describe were revised or omitted. However, after the analysis of data and a reexamination of the original items, it was determined that the initial items were not representative of the seven predictor variables. At this point, predictor variable definitions and items representing these predictor variables were reviewed and amended so the items better represented the predictor variables. Following this thorough revision and selection process, 143 items that closely represented the seven predictor variables they were believed to measure were selected for further validation (see Appendix C).

In February 2006, these 143 items representing the seven Likert-scaled predictor variables were given to 28 educators for a second content validation study. The educators were administrators and veteran teachers, many of whom had leadership experience and educational administration endorsements. Twenty educators returned useable responses, and the data were analyzed. Four of the predictor variables being scaled had at least six closely related items. These variables were the superintendents' perceptions of the community acceptance of alternatively licensed principals; quality of traditional principal preparation programs; supply, both quality and quantity, of the principal applicant pool; and the superintendents' general attitude toward alternative licensure. Final item selection was based on correct classification by the highest percentage of participants (at least 80%

of the raters), items most closely associated with the predictor variables (rated 3.5 or above on the four-point association scale), and most clear (rated 2.5 or above on the three-point clarity scale). Several predictor variables had more than six items that met the selection criteria. In these instances, final item selection was determined by the items believed to be the most clear and least redundant with other items purporting to measure the same predictor variable. The variable superintendents' perceptions of the supply of the applicant pool was expanded. One variable measured supply with respect to the quantity of the applicant pool and one measured supply with respect to quality of the applicant pool. The items selected for the predictor variables and the dichotomous variables are in Table 3.

The remaining three variables--the superintendents' perceptions of ability of the alternatively licensed principals to understand and work within the educational context, the superintendents' perceptions of ability of the alternatively licensed principals to lead instruction, and the superintendents' perceptions of the leadership ability of the alternatively licensed principals--did not have enough closely associated items to meet the selection criteria; therefore, in April 2006, a third content validation study was conducted with a different sample of educators to determine which items could be used from these three variables (see Appendix D). The items selected for the questionnaire from the second content validation study were included in the third study. These items served as distracters, so the items would not easily fit with one of three predictor variables. Participants had over two months to complete the third content validation study and eight of 36 participants responded. Participants were contacted three times. The initial correspondence was an invitation to participate in the content validation process.

The second and third contacts were made to thank the educators who completed the questionnaire and remind those who had not participated. Five of the eight responses were useable. I carefully reviewed the items of the three predictor variables I had difficulty validating. I decided to include items for the superintendents' perceptions of the ability of the alternatively licensed principals to lead instruction and overall leadership ability that were classified correctly by 70% of the raters, were rated 3.5 or above on association, and were rated 2.5 or above on clarity. The predictor variable--the superintendents' perceptions of the alternatively licensed principal's ability to understand and work within the educational context--had no items that met the selection criteria; therefore, I selected the six items I thought best represented the predictor variable they purported to measure. These items were added to the questionnaire and are reported in Table 3.

I developed items measuring the superintendents' perceptions of the importance placed on whether a principal fits the community and the specific leadership needs of the school district after the content validation process for the previous seven predictor variables. Three experts in education administration reviewed these items to determine if they measured the predictor variable they purported to measure. I made revisions, and the final items selected for the questionnaire are in Table 3.

Checking for concurrent validity. Concurrent validity is one type of criterion-related validity that is used to determine whether scores on one measure of a variable are related as expected to scores on a second measure of the same variable (Crocker & Algina, 1986). In this case, I used two measures of superintendents' willingness to recommend hiring alternatively licensed principals. Item 75 of Kufel's instrument was

Table 3

Predictor Variables, Definitions, and Final Items in Kufel's Scales for Testing the Theory of Superintendents' Willingness to Recommend Hiring Alternatively Licensed Principals

Variable: The superintendents' perceptions of the community acceptance of alternatively licensed principals

Description: Superintendents' perceptions of the school community's views on alternatively licensed principals. The school community includes teachers, students, classified staff, partners, parents, other administrators, and community members generally.

Item
22. My community would perceive an alternatively licensed principal as qualified for the job.
27R. My community would be concerned if an alternatively licensed principal were the head of a school in our district.
29. Alternatively licensed principals would be viewed as credible leaders in the eyes of the teachers in my district.
38R. School partners in my district would not accept an alternatively licensed principal.
53. The students in my district would accept an alternatively licensed principal.
69. Parents in my district would accept an alternatively licensed principal.

Variable: Superintendents' perceptions of the leadership ability of alternatively licensed principals

Description: Superintendents' perceptions of the general leadership ability of alternatively licensed principals.

Item
16. Alternatively licensed principals could lead positive change in a school.
28. Alternatively licensed principals would manage school facilities effectively.
36. Alternatively licensed principals have effective leadership skills.
52. Alternatively licensed principals could provide an appropriate educational vision for the school.
58. Alternatively licensed principals could lead a school in the improvement process.
74. Alternatively licensed principals are likely to have the ability to manage people.

(table continues)

Table 3 (*continued*)

Variable: Superintendents' perceptions of the ability of alternatively licensed principals to lead instruction

Description: Superintendents' perceptions of the instructional leadership ability of alternatively licensed principals.

Item
15 Alternatively licensed principals could help teachers who are having difficulty with instruction.
20. Alternatively licensed principals could effectively evaluate the quality of instruction.
32. Alternatively licensed principals could help teachers use research-based instructional strategies.
40. Alternatively licensed principals could help teachers use pacing guides for instruction.
42. Alternatively licensed principals are likely to have the ability to lead people in schools.
48R. Alternatively licensed principals would not understand how to develop effective instruction.
61R. Alternatively licensed principals cannot be instructional leaders.

Variable: Superintendents' general attitude toward alternative licensure

Description: A favorable, unfavorable, or ambivalent evaluation expressed by a superintendent toward alternative licensure in education.

Item
17R. I do not believe in alternative licensure under any circumstances.
24. I am in favor of alternative licensure in education.
31. I believe alternative licensure is a good idea for some school districts.
49R. Alternative licensure has no place in education.
56. Alternative licensure is an idea that should be fully utilized in education.
59. Alternative licensure is a concept that is long overdue.
66R. I am opposed to alternative licensure in education.

Variable: Superintendents' perceptions of the quality of traditional principal preparation programs

Description: Superintendents' perceptions of the quality of traditional principal preparation programs in universities or colleges.

Item
21. Traditional principal preparation programs provide the training necessary for future principals to be successful.

(*table continues*)

Table 3 (*continued*)

-
- 33R. Coursework in traditional principal preparation programs has little to do with the job of a principal.
41R. Traditional principal preparation programs do not meet our school district's needs.
45. Traditional principal preparation programs train high quality leaders.
60. Students trained in traditional principal preparation programs are equipped to meet the demands of the principalship.
65. Traditional principal preparation programs are of high quality.
-

Variable: Quality of the principal applicant pool

Description: Superintendents' perceptions of the condition of the applicant pool, with respect to the quality of principal candidates.

Item

18. In my district, fewer high-quality candidates are applying to fill the role of the principalship.
30. The quality of principal candidates in the applicant pool has diminished.
34. There are few candidates in the principal applicant pool whom I would seriously consider for a principal vacancy.
44R. The number of quality principal candidates applying to fill vacancies has increased in recent years.
50R. My district is currently experiencing some degree of surplus in qualified applicants for the principal position.
-

Variable: Quantity of the principal applicant pool

Description: Superintendents' perceptions of the condition of the applicant pool, with respect to the quantity of principal candidates.

Item

- 39R. The quantity of principal candidates in the applicant pool has increased.
46R. My district consistently attracts numerous principal candidates to fill vacancies.
62. The quantity of principal candidates in the applicant pool has diminished.
67. My district is experiencing a shortage of candidates in the principal applicant pool.
70R. My district is experiencing a surplus of candidates in the principal applicant pool.
-

Variable: Superintendents' perceptions of alternatively licensed principals' ability to understand and work within the educational context

Description: Superintendents' perceptions of the conditions in the work of the principal that may affect the alternatively licensed principal's ability to do the job.

(table continues)

Table 3 (*continued*)

Item

19R. Alternatively licensed principals would not understand the bureaucracy of public school systems.
 35R. Alternatively licensed principals could not meet the accountability standards in my district.
 57R. Alternatively licensed principals would not be able to deal with the day-to-day pressures experienced by principals in my school district.
 64R. Alternatively licensed principals may not understand how school decisions affect the community.
 71R. Alternatively licensed principals would not understand the centrality of education within a community.
 73. Alternatively licensed principals would understand the politics of public education.

Variable: Presence of an induction program for new principals

Description: The presence of a clearly articulated induction program to train alternatively licensed principals.

Item

14. My district has a clear induction program for all incoming principals.

Variable: Past behaviors related to hiring alternatively licensed personnel

Description: Superintendents have participated in the behavior of hiring alternatively licensed personnel.

Item

12. I have hired alternatively licensed teachers.
 13. I have hired alternatively licensed principals.

Variable: Superintendents' perceptions of the specific leadership needs of the school district

Description: The superintendents' perceptions of the importance a principal fills the specific leadership needs of the school district.

Item

23. A school in my district could have some special circumstances that could require a principal who has been prepared in a way other than the traditional principal preparation route.
 26. No single principal preparation method is sufficient to meet the leadership needs of schools in my district.
 37. A school district needs principals who have diverse experiential backgrounds.

(*table continues*)

Table 3 (*continued*)

-
47. The leadership role in a particular school in my district may call for someone who has not been prepared in the traditional way.
 55. At some point a school in my district may need a principal who has a special kind of educational background (e. g., Spanish, mathematics).
 63. A school district needs principals who have diverse educational backgrounds.
-

Variable: Superintendents’ perceptions of the importance placed on whether a principal candidate fits the community

Description: Superintendents’ perceptions of the importance placed on whether or not a principal fits the surrounding community.

-
- | Item |
|---|
| 43. A principal must be a good match for the community. |
| 51. I only consider hiring principals who fit our community. |
| 54. The success of a principal is predicated on how well the candidate fits in with the community. |
| 68. Some schools in my district would favor a principal who has been alternatively licensed. |
| 72. The community’s ideals may call for a principal who has not been prepared in the traditional way. |
-

Note. R = recoded item because of negative wording.

the dichotomous response (yes/no) question “Under the given definition, would you recommend hiring an alternatively licensed principal?” I conducted a two-way analysis of variance (two-way ANOVA) to determine if there was a significant difference between their response to this item and the mean scores obtained from Kufel’s measure of superintendents’ willingness to recommend hiring alternatively licensed principals. If there is a significant difference, then Kufel’s Thurstone instrument discriminates between superintendents who view hiring alternatively licensed principals favorably versus those who view it unfavorably. The analysis of data indicates there is a significant difference in superintendents’ willingness to recommend hiring alternatively licensed principals and item 75 (see Table 4). This difference indicates there is concurrent validity between the two measures of superintendents’ willingness to recommend hiring alternatively licensed

Table 4

Two-Way ANOVA to Determine Significant Difference Between Item 75 and Superintendents' Willingness to Recommend Hiring Alternatively Licensed Principals

Source	Type III sum of squares	<i>df</i>	Mean square	<i>F</i>	<i>p</i>	Partial eta squared
Corrected model	687.04	3	229.01	141.94	.00	.54
Intercept	10272.87	1	10272.87	6367.04	.00	.95
Inside or outside education group	.52	1	.52	.33	.57	.00
Superintendents' willingness to recommend hiring under the given definition	647.18	1	647.18	401.12	.00	.53
Inside or outside education group * Superintendents' willingness to recommend hiring under the given definition	1.95	1	1.95	1.21	.27	.00
Error	584.07	362	1.61			
Total	11661.82	366				
Corrected total	1271.11	365				

principals. The analysis of the means shows that those who were willing to recommend hiring alternatively licensed principals under the given definition (responded affirmatively to item 75), regardless of inside education or outside education definition, were more willing to recommend hiring based on the mean Thurstone scores (see Table 5).

Table 5

Descriptive Statistics for Significant Predictors of Two-Way ANOVA

Inside education or outside education group	Superintendents' willingness to recommend hiring under the given definition	<i>M</i>	<i>SD</i>	<i>N</i>
Outside education group	No	3.94	1.20	119
	Yes	6.81	1.25	74
	Total	5.04	1.85	193
Inside education group	No	4.12	1.30	73
	Yes	6.73	1.35	100
	Total	5.65	1.84	173
Total	No	4.03	1.24	192
	Yes	6.76	1.30	174
	Total	5.33	1.87	366

Checking for construct validity. A factor analysis was conducted to test the construct validity of the theory that variation in superintendents' willingness to recommend hiring alternatively licensed principals can be explained by the variables identified by Kufel et al. (2005). Through a factor analysis, common underlying factors can be determined based on variation in responses to items (Crocker & Algina, 1986). A principal components analysis, a type of factor analysis, was used to extract the factors that explain the variation among measures (Green, Salkind, & Akey, 2000). Once the factors were extracted, an orthogonal rotational method, Varimax with Kaiser

Normalization, was chosen to best interpret the factors. The rotation converged in 8 iterations.

The principal components analysis yielded nine useable factors or components (see Appendix E). Component eleven was not used because no items had a substantial loading of .40 or greater. The two items that had substantial loadings on component 10 were omitted because the researcher believed they were unrelated conceptually. Component eight had only two items with a substantial loading; however, it was used because it was determined they were related conceptually. Table 3 was revised, based on the principal components analysis, to include the revised predictor variables and the items that are purported to measure them. The revised predictor variables and items are in Table 6.

The theory has been stated and measures of the predictor and criterion variables have been developed. A multiple regression analysis was conducted to validate the theory. If a significant amount of variance is explained by the variables identified in the theory, then the instrument and theory will be validated. If, on the other hand, the predictor variables identified in the theory do not significantly explain variance in the criterion variable, then either the theory or the instrument used to measure the criterion variable is faulty. In either case, further revisions must be made.

Other factors to be considered during the construct validation phase include model specification and collinearity among the predictor variables. If two or more predictor variables are highly correlated, then revision of the theoretical framework should be considered. Diagnostics that would indicate collinearity include high zero-order correlations among predictor variables, uninterpretable results for R^2 , extremely

Table 6

Predictor Variables, Definitions, and Final Items in Kufel's Scales for Testing the Theory of Superintendents' Willingness to Recommend Hiring Alternatively Licensed Principals Following the Principal Components Analysis

Variable: The superintendents' perceptions of the community acceptance of alternatively licensed principals

Description: Superintendents' perceptions of the school community's views on alternatively licensed principals. The school community includes school partners, parents, and community members as a whole.

Item
22. My community would perceive an alternatively licensed principal as qualified for the job.
27R. My community would be concerned if an alternatively licensed principal were the head of a school in our district.
38R. School partners in my district would not accept an alternatively licensed principal.
69. Parents in my district would accept an alternatively licensed principal.

Variable: Superintendents' perceptions of the management capacity of alternatively licensed principals

Description: Superintendents' perceptions of the management capacity (people and facilities) of alternatively licensed principals.

Item
28. Alternatively licensed principals would manage school facilities effectively.
36. Alternatively licensed principals have effective leadership skills.
42. Alternatively licensed principals are likely to have the ability to lead people in schools.
74. Alternatively licensed principals are likely to have the ability to manage people.

Variable: Superintendents' perceptions of the ability of alternatively licensed principals to lead instruction

Description: Superintendents' perceptions of the instructional leadership ability of alternatively licensed principals.

Item
15. Alternatively licensed principals could help teachers who are having difficulty with instruction.
16. Alternatively licensed principals could lead positive change in a school.
20. Alternatively licensed principals could effectively evaluate the quality of instruction.

(table continues)

Table 6 (*continued*)

-
29. Alternatively licensed principals would be viewed as credible leaders in the eyes of the teachers in my district.
32. Alternatively licensed principals could help teachers use research-based instructional strategies.
- 35R. Alternatively licensed principals could not meet the accountability standards in my district.
40. Alternatively licensed principals could help teachers use pacing guides for instruction.
- 48R. Alternatively licensed principals would not understand how to develop effective instruction.
52. Alternatively licensed principals could provide an appropriate educational vision for the school.
- 57R. Alternatively licensed principals would not be able to deal with the day-to-day pressures experienced by principals in my school district.
58. Alternatively licensed principals could lead a school in the improvement process.
- 61R. Alternatively licensed principals cannot be instructional leaders.
- 71R. Alternatively licensed principals would not understand the centrality of education within a community.
-

Variable: Superintendents' general attitude toward alternative licensure

Description: A favorable, unfavorable, or ambivalent evaluation expressed by a superintendent toward alternative licensure in education.

Item

- 17R. I do not believe in alternative licensure under any circumstances.
24. I am in favor of alternative licensure in education.
31. I believe alternative licensure is a good idea for some school districts.
- 49R. Alternative licensure has no place in education.
56. Alternative licensure is an idea that should be fully utilized in education.
59. Alternative licensure is a concept that is long overdue.
- 66R. I am opposed to alternative licensure in education.
-

Variable: Superintendents' perceptions of the quality of traditional principal preparation programs

Description: Superintendents' perceptions of the quality of traditional principal preparation programs in universities or colleges.

(*table continues*)

Table 6 (*continued*)

Item
21. Traditional principal preparation programs provide the training necessary for future principals to be successful.
33R. Coursework in traditional principal preparation programs has little to do with the job of a principal.
41R. Traditional principal preparation programs do not meet our school district's needs.
45. Traditional principal preparation programs train high quality leaders.
60. Students trained in traditional principal preparation programs are equipped to meet the demands of the principalship.
65. Traditional principal preparation programs are of high quality.

Variable: Superintendents' perceptions of the supply of the applicant pool

Description: Superintendents' perceptions of the supply of the applicant pool, with respect to the quantity and quality of principal candidates.

Item
18. In my district, fewer high-quality candidates are applying to fill the role of the principalship.
30. The quality of principal candidates in the applicant pool has diminished.
34. There are few candidates in the principal applicant pool whom I would seriously consider for a principal vacancy.
39R. The quantity of principal candidates in the applicant pool has increased.
44R. The number of quality principal candidates applying to fill vacancies has increased in recent years.
46R. My district consistently attracts numerous principal candidates to fill vacancies.
50R. My district is currently experiencing some degree of surplus in qualified applicants for the principal position.
62. The quantity of principal candidates in the applicant pool has diminished.
67. My district is experiencing a shortage of candidates in the principal applicant pool.
70R. My district is experiencing a surplus of candidates in the principal applicant pool.

Variable: Superintendents' perceptions of alternatively licensed principals' ability to understand and work within the educational environment

Description: Superintendents' perceptions of the conditions in the work of the principal that may affect the alternatively licensed principal's ability to do the job.

Item
19R. Alternatively licensed principals would not understand the bureaucracy of public school systems.
64R. Alternatively licensed principals may not understand how school decisions affect the community.

(*table continues*)

Table 6 (*continued*)

73. Alternatively licensed principals would understand the politics of public education.

Variable: Presence of an induction program for new principals

Description: The presence of a clearly articulated induction program to train alternatively licensed principals.

Item

14. My district has a clear induction program for all incoming principals.

Variable: Past behaviors related to hiring alternatively licensed personnel

Description: Superintendents have participated in the behavior of hiring alternatively licensed personnel.

Item

12. I have hired alternatively licensed teachers.

13. I have hired alternatively licensed principals.

Variable: Superintendents' perceptions of the specific leadership needs of the school district

Description: The superintendents' perceptions of the importance a principal fills the specific leadership needs of the school district.

Item

37. A school district needs principals who have diverse experiential backgrounds.

63. A school district needs principals who have diverse educational backgrounds.

Variable: Superintendents' perception of the importance placed on whether a principal candidate fits the community

Description: Superintendents' perceptions of the importance placed on whether or not a principal fits the surrounding community.

Item

43. A principal must be a good match for the community.

51. I only consider hiring principals who fit our community.

54. The success of a principal is predicated on how well the candidate fits in with the community.

Note. R = recoded item because of negative wording.

large Beta weights (standardized regression coefficients), or low tolerances and high variation inflation factors (VIF). All relevant variables should be included and all irrelevant variables should be excluded. There were no collinearity problems. Further treatment of this issue is continued in chapter 3 under the section titled *Dealing With Collinearity Among Predictor Variables*.

Item Analysis and Reliability. A correlation coefficient between each item and the total score minus the item in question was calculated following the principal components analysis. Items that possessed weak correlations with the total score were revised or omitted. Items that possessed strong correlations with the total score were kept. Inter-item correlations are included to illustrate relationships between items in each scale (see Appendix F). Cronbach's alpha was used to determine the internal consistency of the items in each scale. The inclusion of each scale in the study was predicated on a minimum alpha coefficient of .75. The predictor variables superintendents' perceptions of the importance placed on whether a principal candidate fits the community, superintendents' perceptions of alternatively licensed principals' ability to understand and work within the educational environment, and superintendents' perceptions of the specific leadership needs of the school district had coefficients close to the criterion and were subsequently included in the study (see Table 7). The items in the final scale (Items 55 and 68) did not meet the criterion (coefficient was .36) and were not included, although they had substantial loading of over .40. The reliability estimates are listed in Table 7.

Table 7

Alpha Reliability Coefficients for the Scales of Kufel's Instrument to Measure the Predictor Variables Hypothesized to be Associated With Variation in the Willingness of Superintendents to Recommend Hiring Alternatively Licensed Principals

Subscale	<i>N</i> (Items)	<i>M</i> Scale mean (Item mean)	Scale <i>SD</i>	Alpha
Instructional leadership (Items 15, 16, 20, 29, 32, 35R, 40, 48R, 52, 57R, 58, 61R, 71R)	13	33.01 (2.54)	6.51	.94
Supply of applicant pool (Items 18, 30, 34, 39R, 44R, 46R, 50R, 62, 67, 70R)	10	26.06 (2.61)	5.43	.92
Traditional preparation programs (Items 21, 33R, 41R, 45, 60, 65)	6	16.53 (2.76)	2.79	.88
General attitude (Items 17R, 24, 31, 49R, 56, 59, 66R)	7	18.80 (2.69)	3.72	.91
Management ability (Items 28, 36, 42, 74)	4	10.75 (2.69)	1.78	.82
Community acceptance (Items 22, 27R, 38R, 69)	4	9.58 (2.40)	2.31	.88
Community fit (Items 43, 51, 54)	3	9.46 (3.15)	1.47	.70
Diverse background (Items 37, 63)	2	5.96 (2.98)	.84	.71

(table continues)

Table 7 (continued)

Subscale	<i>N</i> (Items)	<i>M</i> Scale mean (Item mean)	Scale <i>SD</i>	Alpha
Educational environment (Items 19R, 64R, 73)	3	7.35 (2.45)	1.51	.69

Note. R = recoded item because of negative wording. Instructional Leadership = superintendents' perceptions of the ability of alternatively licensed principals to lead instruction, Supply of applicant pool = superintendents' perceptions of the supply of the principal applicant pool, Traditional preparation programs = superintendents' perceptions of the quality of traditional principal preparation programs, General attitude = superintendents' general attitude toward alternative licensure, Management ability = superintendents' perceptions of the management capacity of alternatively licensed principals, Community acceptance = superintendents' perceptions of the community acceptance of alternatively licensed principals, Community Fit = superintendents' perception of the importance placed on whether a principal candidate fits the community, Diverse Background = superintendents' perceptions of the specific leadership needs of the school district, Educational Environment = superintendents' perceptions of alternatively licensed principals' ability to understand and work within the educational environment.

Scoring. Responses to the items were on a four-point Likert scale. Responses, not items, are scaled because it is assumed that each item carries an equal amount of weight. Possible responses from the participants were: 1 = strongly disagree, 2 = disagree, 3 = agree, and 4 = strongly agree. Means were calculated for each scale to avoid problems associated with missing data. Scores ranged from the total number of items in a scale times one (minimum) to the total number of items in a scale times four (maximum). Items negatively worded were reverse coded to maintain scoring consistency.

Administration of the Measures

After all the items for the questionnaire were selected, I copied and pasted them from a Microsoft Word document to Virginia Tech's survey software at <http://www.survey.vt.edu/>. I administered the questionnaire to the sample of AASA

superintendents using Virginia Tech's survey software at <http://www.survey.vt.edu/>. The administration of the questionnaire followed the process outlined by Dillman (2000). Potential participants were first contacted via email. The email included an explanation of the research and a notice that a brief Web-based survey regarding alternatively licensed principals will be sent in the next two to three days (see Appendix G). A brief survey cover letter and the URL to the questionnaire at <http://www.survey.vt.edu/> were sent via email two or three days after the initial contact inviting superintendents to participate in the study (see Appendix G). Follow up of nonrespondents was conducted using the process outlined by Dillman. Two weeks after the initial contact, respondents were sent another email thanking those who participated in the Web-based questionnaire and reminding those who had not participated (see Appendix G). An additional link (URL) to the questionnaire was included in the email. At four weeks, nonrespondents were sent an abbreviated letter, via email, summarizing the study and its importance, and an URL to the questionnaire (see Appendix G). Superintendents who did not respond at this point were excluded from the study.

Data Management

Data were gathered using Virginia Tech's survey software and exported to SPSS version 12.0. Data checks were performed at each phase of data collection and data entry. During the development of the instrument and following the collection of data, participant responses were checked for outlying numbers that did not fit the scales. Descriptive statistics and frequencies were calculated to conduct the data checks. Outliers were corrected after further examination of the participants' responses.

Data Analysis

The data was analyzed in two parts--descriptive statistics and multiple regression analysis. The descriptive statistics contain means, standard deviations, frequencies, t-tests, chi-squares, and bivariate correlations and was used to get a cursory look at the data, and observe relationships between variables. Multiple regression analysis was used to determine the amount of variance in the willingness of superintendents' to recommend hiring alternatively licensed principals.

CHAPTER 3

RESULTS

Nineteen predictor variables were theorized to influence superintendents' willingness to recommend hiring alternatively licensed principals. The purpose of my study was to determine how well these variables, individually and as a group, predicted the criterion variable. Data are presented in two parts. The first part contains means, standard deviations, frequencies, t-tests, chi-squares, and bivariate correlations. The second part is the multiple regression analysis of the criterion variable on the 19 predictor variables. The results of these analyses are presented in the following sections.

Descriptive Data and Univariate Statistics for All Variables

Twelve hundred superintendents who were members of the American Association of School Administrators (AASA) in 2005 were asked to complete an 82-item questionnaire. Five items (items 76-78, and 80-81) were included to acquire demographic information (see Table 8). The predictor variables were measured with items 12-75, 79, and 82 (see Appendix H). Descriptive statistics were used to measure the amount of dispersion and central tendency for each of the variables being measured. Univariate statistics for the predictor variables by group (inside definition or outside definition of alternatively licensed principals), including the means, standard deviations, ranges, and sample sizes, are in Table 8. The criterion variable was measured with items one through 11 (see Appendix H). Bivariate correlation coefficients were used to analyze the relationships between the continuous predictor variables (see Appendix I). The results of the descriptive data are presented in this section.

Descriptive Data and Univariate Statistics Differences Between Inside and

Outside Definition Groups on the Predictor Variables

The inside and outside definition groups differed significantly on five of the predictor variables. The five variables were the superintendents' perceptions of the ability of alternatively licensed principals to lead instruction, the general attitude of superintendents toward alternative licensure, the superintendents' perceptions of the supply of the applicant pool, the superintendents' perceptions of the quality of traditional principal preparation programs, and the superintendents' perceptions of the community acceptance of alternatively licensed principals; the remaining variables did not differ between groups (see Table 8).

Most means for both groups were in the slightly agree to agree ($M > 2.50$) range. The means of the variables computed for the inside education group ranged from 2.50 to 3.18. The superintendents' perceptions of alternatively licensed principals' ability to understand and work within the educational environment had the lowest mean in the inside education group ($M=2.50$). The superintendents' perceptions of the importance placed on whether a principal candidate fits the community had the highest mean for both the inside education ($M=3.18$) and outside education ($M=3.13$) groups. The means of the variables computed for the outside education group ranged from 2.29 to 3.13. The superintendents' perceptions of the community acceptance of alternatively licensed principals had the lowest mean for the outside definition ($M=2.29$) group.

Differences Between Groups on the Predictor Variables

Instructional leadership was one of five predictor variables with a significant difference between the inside and outside education groups $t(376.97) = -4.80, p \leq .001$. The inside education group expressed a more favorable attitude toward alternatively

licensed principals ability to be instructional leaders than the outside education group. The overall mean, including both inside and outside education groups, was 2.53 indicating slight agreement (Agree = 3) with the belief that alternatively licensed principals could be instructional leaders.

Superintendents' general attitude toward alternative licensure was another variable with a significant difference between the inside and outside groups $t(376.72) = -1.98, p \leq .05$. The outside group had a less favorable view toward alternative licensure in education than the inside group. The overall mean of the general attitude variable was 2.68, which suggests superintendents view alternative licensure in education with a positive, but neutral point of view. It was somewhat surprising to the researcher; however, many superintendents have experience with alternatively licensed (or certified) teachers. Hartley (2007) discovered a similar finding during a study conducted with directors of human resources.

The supply of the applicant pool was another predictor variable that displayed a significant difference between the inside and outside groups $t(377) = -2.06, p \leq .05$. Superintendents in the inside group believed their districts were experiencing more of a shortage in principal applicants than those in the outside education group. A neutral mean among superintendents on the supply of the applicant pool ($M = 2.58$) was found. This indicates superintendents, overall, believe they are experiencing neither a shortage of principals in the applicant pool nor a surplus of principals in the applicant pool.

A statistical difference existed between the inside and outside groups view of the quality of traditional principal preparation programs $t(377) = -1.97, p \leq .05$.

Table 8

*Means, Standard Deviations, Minimums, Maximums, and t-tests for Predictor Variables
Classified by Inside and Outside Definition Groups*

Predictor variable	Total		Group membership				<i>t</i>
			Inside definition		Outside definition		
	<i>N</i> Total used Missing	<i>M</i> <i>SD</i> <i>Min./Max.</i>	<i>N</i> Total used Missing	<i>M</i> <i>SD</i> <i>Min./Max.</i>	<i>N</i> Total used Missing	<i>M</i> <i>SD</i> <i>Min./Max.</i>	
Years as superintendent	323 57	10.24 7.68 1.00/36.00	152 26	10.53 7.79	171 31	9.98 7.60	-6.51
Schools in district	342 38	9.38 21.13 1.00/306.00	165 12	9.34 16.76	177 25	9.41 24.56	.03
Students in district	317 63	2898.02 4503.81 1.00/59000.00	177 1	3009.77 3673.31	168 34	2798.90 5138.40	-.42
Instructional leadership	379 1	2.53 .52 1.00/3.77	177 1	2.66 .47 1.00/3.69	202 0	2.41 .53 1.00/3.77	-4.80**
Supply of applicant pool	379 1	2.58 .54 1.00/4.00	177 1	2.64 .55 1.10/4.00	202 0	2.53 .52 1.00/3.90	-2.06*
Traditional preparation programs	379 1	2.75 .46 1.00/4.00	177 1	2.80 .45 1.33/4.00	202 0	2.71 .46 1.00/3.83	-1.97*

(table continues)

Table 8 (continued)

Predictor variable	Total		Group membership				<i>t</i>
	<i>N</i> Total used Missing	<i>M</i> <i>SD</i> <i>Min./Max.</i>	<i>N</i> Total used Missing	<i>M</i> <i>SD</i> <i>Min./Max.</i>	<i>N</i> Total used Missing	<i>M</i> <i>SD</i> <i>Min./Max.</i>	
General attitude	379 1	2.68 .54 1.00/4.00	177 1	2.74 .49 1.00/4.00	202 0	2.63 .57 1.00/4.00	-1.98
Management ability	379 1	2.67 .46 1.00/3.75	177 1	2.68 .46 1.00/3.75	202 0	2.67 .46 1.00/3.75	-.32
Acceptance	379 1	2.40 .58 1.00/4.00	177 1	2.52 .54 1.00/4.00	202 0	2.29 .59 1.00/3.75	-3.98**
Community fit	376 4	3.15 .50 1.33/4.00	176 2	3.18 .51 1.33/4.00	200 2	3.13 .49 2.00/4.00	-1.04
Diverse background	377 3	2.98 .42 1.50/4.00	176 2	3.01 .39 1.50/4.00	201 1	2.95 .45 1.50/4.00	-1.47
Educational environment	379 1	2.45 .51 1.00/4.00	177 1	2.50 .46 1.00/3.50	202 0	2.41 .55 1.00/4.00	-1.82

Note. The scale was 1= Strongly disagree, 2 = Disagree, 3 = Agree, 4 = Strongly agree

* $p \leq .05$, ** $p \leq .001$

Superintendents from the outside group were not as pleased with the performance of traditional principal preparation programs as those from the inside group; however, both groups, on average, viewed traditional preparation programs slightly favorably. The overall mean was 2.75 with a standard deviation of .46. This was one of the lowest standard deviations among predictor variables and shows there was little variance among superintendents in their opinions about traditional preparation programs.

The final variable the groups differed on was superintendents' perceptions of the community acceptance of alternatively licensed principals $t(377) = -3.98, p \leq .001$. Superintendents from the inside group believed their communities would be more accepting of these individuals ($M = 2.52$) than the outside group ($M = 2.29$); however, neither group displayed means that illustrated their communities would be very supportive of hiring alternatively licensed principals.

Descriptive Data: Characteristics of Participants and Their School Districts

Superintendents who participated in the study were from 46 states and Alberta, Canada. Nearly one-third of all participants were from five states. These states were New York, Nebraska, Wisconsin, Pennsylvania, and Illinois, which had the most participants (see Table 9). Two-thirds of all superintendents who participated in the study considered their district rural or rural/suburban. Only five percent considered their district urban. The majority of the participants had less than eight years of total experience as a superintendent. About 75% had less than 15 years of experience. Nine out of every 10 superintendents led school districts with less than 18 schools under their guidance. Only four percent of the participants' had school districts with student populations that

Table 9

State of Employment of Responding Superintendents

State	Number of respondents Inside definition/Outside definition	Percentage of total respondents
1. Alabama	7 2/5	1.90
2. Alaska	1 1/0	.27
3. Arizona	3 0/3	.80
4. Arkansas	2 1/1	.54
5. California	4 1/3	1.07
6. Colorado	4 2/2	1.07
7. Connecticut	6 2/4	1.61
8. Delaware	1 1/0	.27
9. Florida	4 4/0	1.07
10. Georgia	3 3/0	.80
11. Hawaii	0 0/0	.00
12. Idaho	1 1/0	.27
13. Illinois	28 14/14	7.51
14. Indiana	14 7/7	3.75
15. Iowa	13 7/6	3.49
16. Kansas	11 5/6	2.95
17. Kentucky	4 2/2	1.07
18. Louisiana	1 0/1	.27
19. Maine	1 1/0	.27

(table continues)

Table 9 (continued)

State	Number of respondents Inside definition/Outside definition	Percentage of total respondents
20. Maryland	2 0/2	.54
21. Massachusetts	10 8/2	2.68
22. Michigan	17 8/9	4.56
23. Minnesota	13 3/10	3.49
24. Mississippi	2 2/0	.54
25. Missouri	18 10/8	4.83
26. Montana	5 2/3	1.34
27. Nebraska	21 10/11	5.63
28. Nevada	0 0/0	.00
29. New Hampshire	2 1/1	.54
30. New Jersey	14 7/7	3.75
31. New Mexico	0 0/0	.00
32. New York	21 9/12	5.63
33. North Carolina	8 4/4	2.14
34. North Dakota	8 5/3	2.14
35. Ohio	10 2/8	2.68
36. Oklahoma	6 4/2	1.61
37. Oregon	6 2/4	1.61
38. Pennsylvania	22 7/15	5.90

(table continues)

Table 9 (continued)

State	Number of respondents Inside definition/Outside definition	Percentage of total respondents
39. Rhode Island	0 0/0	.00
40. South Carolina	2 0/2	.54
41. South Dakota	5 3/2	1.34
42. Tennessee	7 4/3	1.88
43. Texas	16 5/11	4.29
44. Utah	2 1/1	.54
45. Vermont	2 1/1	.54
46. Virginia	10 7/3	2.68
47. Washington	10 6/4	2.68
48. West Virginia	1 0/1	.27
49. Wisconsin	21 8/13	5.63
50. Wyoming	2 1/1	.54
51. Alberta, Canada	1 1/0	.27
Total	373	98.16
Not coded	7 2/5	1.84
Total	380	100.00

Note. Not coded means the participant did not respond to the item and the researcher was unable to determine the state in which the superintendent was employed. One superintendent #128 reported both Michigan and Indiana.

exceeded 10,000 students. One-half of the superintendents led districts with less than 1700 students.

Data on the characteristics of participants and their school districts by group

(inside definition or outside definition of alternatively licensed principals) are in Table

10. Sixty percent of the participants from the inside definition group would hire under the

Table 10

Relationships Between Group Membership and Characteristics of Participants and Their School Districts on the Categorical Variables

Variable		Group membership						Chi-square
		Total		Inside definition		Outside definition		
		N	%	N	%	N	%	
District classification	Rural	157	42.20	70	39.77	87	44.39	2.29
	Rural/suburban	88	23.66	46	26.14	42	21.43	
	Suburban	76	20.43	34	19.32	42	21.43	
	Suburban/urban	31	8.33	17	9.66	14	7.14	
	Urban	20	5.38	9	5.11	11	5.61	
	Total	372		176		196		
	Missing	8		2		6		
Ability to hire under given definition	Yes	175	47.68	100	57.80	75	38.66	13.44**
	No	192	52.32	73	42.20	119	61.34	
	Total	367		173		194		
	Missing	13		5		8		
More willing to hire an alternatively licensed assistant principal	Yes	204	54.99	111	63.43	93	47.45	9.54*
	No	167	45.01	64	36.57	103	52.55	
	Total	371		175		196		
	Missing	9		3		6		
District allows hiring alternatively licensed principals	Yes	152	41.19	67	38.29	85	43.81	1.16
	No	217	58.81	108	61.71	109	56.19	
	Total	369		175		194		
	Missing	11		3		8		

(table continues)

Table 10 (continued)

Variable		Group membership						Chi-square
		Total		Inside definition		Outside definition		
		<i>N</i>	%	<i>N</i>	%	<i>N</i>	%	
Past hiring alternatively licensed teacher	Yes	217	57.87	101	57.71	116	58.00	.00
	No	158	42.13	74	42.29	84	42.00	
	Total	375		175		200		
Past hiring alternatively licensed principal	Yes	24	6.33	12	6.78	12	5.94	.11
	No	355	93.67	165	93.22	190	94.06	
	Total	379		177		202		
Presence of an induction program	Yes	163	42.89	72	40.45	91	45.05	.82
	No	217	57.11	106	59.55	111	54.95	
	Total	380		178		202		
	Missing	0		0		0		

* $p \leq .005$, ** $p \leq .001$

given definition, while less than 40% of the participants in the outside definition group would be willing to hire. Most participants (about 60%) were not allowed to recommend hiring principals under the definition provided for an alternatively licensed principal. Almost two-thirds of participants from the inside definition group would hire an alternatively licensed assistant principal. The percentage drops to under 50% for participants in the outside definition group. Almost 60% of the participants had experience hiring alternatively licensed teachers. The percentages were similar for both groups. The overwhelming majority of superintendents had no past experiences hiring alternatively licensed principals. However, 24 (six percent) superintendents, 12 from each group, have hired alternatively licensed principals in the past. Less than half of all respondents (43%) stated their district had a clear induction program for all incoming principals.

Descriptive Data: A Look at the Criterion Variable

The criterion variable was superintendents' willingness to recommend hiring alternatively licensed principals. Participants responded to 11 items with each item representing a point on the scale from one to 11. The mean, which could range from one to 11, was calculated for items to which participants responded affirmatively. As a rule of thumb, a score of between one and 4.33 represented a participant who viewed the hiring of an alternatively licensed principal unfavorably, a score between 7.68 and 11 represented a favorable view of hiring an alternatively licensed principal, and a score between 4.34 and 7.67 would illustrate participants who held neutral views. The means for each of the three groups (total respondents, inside definition, and outside definition) are in Table 11.

Table 11

Means of the Criterion Variable for Inside Definition, Outside Definition, and Total Groups

Criterion variable	Total group		Inside definition group		Outside definition group	
	<i>N</i>	<i>M</i>	<i>N</i>	<i>M</i>	<i>N</i>	<i>M</i>
	Total used	<i>SD</i>	Total used	<i>SD</i>	Total used	<i>SD</i>
	Missing	<i>Min./Max.</i>	Missing	<i>Min./Max.</i>	Missing	<i>Min./Max.</i>
Willingness to hire	379	5.31	178	5.63	201	5.02
	1	1.86	0	1.85	1	1.83
		2.50/10.00		2.50/10.00		2.50/9.00

The mean score for all participants ($N=379$) was 5.31 ($SD = 1.86$), which represents a score that is neutral, but close to viewing the employment of alternatively licensed principals unfavorably. The scores ranged from 2.50 to 10.00. One hundred twenty-nine participants (34.0%) viewed hiring alternatively licensed principals unfavorably (scores of 1.00-4.33); 207 participants (54.6%) remained neutral (scores of

4.34-7.67); and 43 participants (11.3%) expressed favorable views (7.68-11.00). Sixty-five participants (17.2%) had a score of 3.00, which was the most frequent. A 6.00 was the next most frequent score obtained by participants; however, only 25 participants (6.6%) represented this category.

Descriptive Data: A Look at the Criterion Variable for the Inside

Education Definition Group

There were 178 participants (none missing) in the inside education definition group. The range of scores was from 2.50 to 10.00 and the mean score obtained was a 5.63 ($SD = 1.85$), which represents a neutral view towards recommending the hiring of alternatively licensed principals. The neutral group had the most participants, 107 or 60.1%, score in that range (scores of 4.34-7.67). Forty-six participants (25.8%) viewed hiring alternatively licensed principals unfavorably (scores of 1.00-4.33), while 25 participants (14.0%) viewed hiring alternatively licensed principals favorably (scores of 7.68-11.00).

Descriptive Data: A Look at the Criterion Variable for the Outside

Education Definition Group

The outside education definition group had 201 participants with one missing. The scores ranged from 2.50 to 9.00 and are not as variable as the inside education definition group. The mean score of the outside definition group was 5.02 ($SD=1.83$). This score indicates the lower end of the neutral range, which means these participants were neutral, but leaned toward negative views of hiring alternatively licensed principals. The largest group, 100 participants, was the neutral group (scores of 4.34-7.67). Almost half of all superintendents (49.8%) fell in this range. The group who viewed hiring

alternatively licensed principals negatively (scores of 1.00-4.33) had 83 superintendents (41.3%) fall in this range, while only 18 participants (9.0%) viewed hiring alternatively licensed principals positively (7.68-11.00).

Differences Between the Inside and Outside Definition Groups on Willingness to Recommend Hiring Alternatively Licensed Principals

An independent-samples t test was conducted to determine if a significant difference occurred between the means on the criterion variable--superintendents' willingness to recommend hiring alternatively licensed principals--for the inside and outside education definition groups (see Table 12). The test was significant, $t(377) = -3.21$, $p = .001$, and the result was consistent with the researcher's theory.

Superintendents, given the outside definition of alternatively licensed principals ($M = 5.02$, $SD = 1.83$) were less likely to recommend hiring an alternatively licensed principal than superintendents given the inside education definition ($M = 5.63$, $SD = 1.85$). The results support the conclusion that superintendents who were given the inside education definition view hiring an alternatively licensed principal more favorably than those given the outside education definition.

Table 12

T-test for Differences Between the Inside and Outside Definition Groups on Willingness to Recommend Hiring Alternatively Licensed Principals

Definition	<i>N</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>df</i>	<i>p</i>
Outside	201	5.02	1.83	-3.21	377	.001
Inside	178	5.63	1.85			

* $p \leq .05$

Multiple Linear Regression: The Prediction of Superintendents' Willingness to Recommend Hiring Alternatively Licensed Principals

A multiple linear regression analysis was conducted to predict superintendents' willingness to recommend hiring alternatively licensed principals (criterion variable). The criterion variable was regressed on 19 predictor variables. Nine predictor variables (*superintendents' perceptions of the ability of alternatively licensed principals to lead instruction, superintendents' perceptions of the supply of principal applicant pool, superintendents' perceptions of the quality of traditional principal preparation programs, superintendents' general attitude toward alternative licensure, superintendents' perceptions of the management capacity of alternatively licensed principals, superintendents' perceptions of the community acceptance of alternatively licensed principals, superintendents' perceptions of the importance placed on whether a principal candidate fits the community, superintendents' perceptions of the specific leadership needs of the school district, and superintendents' perceptions of alternatively licensed principals ability to understand and work within the educational environment*) were identified from the principal components analysis of the measures. These variables along with the continuous (*years as superintendent, and number of schools in district*) and categorical variables (*superintendents' past experiences hiring alternatively licensed teachers and principals, presence of a clear induction program for principals, ability to hire under given definition, willingness to hire an alternatively licensed assistant principal, district classification, willingness to recommend hiring under given definition, and inside or outside education definition group*) were used to conduct the multiple linear

regression analysis. The analysis is presented in two parts--the preliminary statistics and the results of the multiple linear regression analysis. The variable codes are in Table 13.

Preliminary Statistics for the Study

In this section, Pearson correlation coefficients; collinearity statistics, in the form of tolerance and variation inflation factor (VIF); and regression coefficients are presented. Correlation coefficients were used to determine whether relationships exist between the predictor variables and the criterion variable. Additionally, they were used, in conjunction with tolerance and VIF to determine if predictor variables shared variance, therefore, introducing collinearity.

Correlations Between Predictor Variables and Superintendents' Willingness to Recommend Hiring Alternatively Licensed Principals

Correlation coefficients were computed between the predictor variables and the criterion variable for the total group and for the subgroups--inside definition group and outside definition group. The Bonferroni approach to control for Type I error across correlations was applied, and a p-value of less than .05 was required for significance. The results of the correlation analyses are in Table 13. Thirteen predictor variables were statistically significant for both the inside and outside definition groups. Slight differences were found. Overall, 14 predictor variables were correlated significantly with the criterion variable.

The superintendents' perceptions of the ability of alternatively licensed principals to lead instruction, superintendents' perceptions of community acceptance of alternatively licensed principals, the superintendents' general attitude toward alternative licensure, and superintendents' willingness to hire under the given definition were the

Table 13

Pearson Correlation Coefficients Between the Predictor Variables and Superintendents' Willingness to Recommend Hiring Alternatively Licensed Principals

Predictor variable	Code	Total		Inside definition		Outside definition	
		<i>N</i>	<i>R</i>	<i>N</i>	<i>r</i>	<i>N</i>	<i>r</i>
Past hiring of an alternatively licensed teacher	No=0 Yes=1	374	.19**	175	.08	201	.30**
Past hiring of an alternatively licensed principal	No=0 Yes=1	378	.36**	177	.29**	199	.43**
Presence of an induction program	No=0 Yes=1	379	.04	178	.05	201	.05
The number of years as superintendent	Numerical	322	.05	152	.18*	170	-.07
Superintendents' perceptions of the supply of the principal applicant pool	Strongly disagree=1 Disagree=2 Agree=3 Strongly agree=4	378	.34**	177	.28**	201	.37**
Superintendents' perceptions of the quality of traditional principal preparation	Strongly disagree=1 Disagree=2 Agree=3 Strongly agree=4	378	-.17**	177	-.14*	201	-.23**
Superintendents' general attitude toward alternative licensure	Strongly disagree=1 Disagree=2 Agree=3 Strongly agree=4	378	.70**	177	.70**	201	.70**
Superintendents' perceptions of the management capacity of alternatively licensed principals	Strongly disagree=1 Disagree=2 Agree=3 Strongly agree=4	378	.55**	177	.59**	201	.52**

(table continues)

Table 13 (*continued*)

Predictor variable	Code	Total		Inside definition		Outside definition	
		<i>N</i>	<i>R</i>	<i>N</i>	<i>R</i>	<i>N</i>	<i>R</i>
Superintendents' perception of the importance placed on whether a principal candidate fits the community	Strongly disagree=1 Disagree=2 Agree=3 Strongly agree=4	375	-.08	176	-.08	199	-.11
Superintendents' perceptions of the specific leadership needs of the school district	Strongly disagree=1 Disagree=2 Agree=3 Strongly agree=4	376	.18**	176	.15*	200	.19**
Superintendents' perceptions of alternatively licensed principals' ability to understand and work within the educational context	Strongly disagree=1 Disagree=2 Agree=3 Strongly agree=4	378	.53**	177	.49**	201	.55**
Superintendents' willingness to hire under the given definition	No=0 Yes=1	366	.73**	173	.69**	193	.76**
District classification	Rural=1 Rural/sub.=2 Suburban=3 Sub./urban=4 Urban=5	371	.04	176	.02	195	.05
The ability of superintendents to recommend hiring alternatively licensed principals in his or her district	No=0 Yes=1	368	.36**	175	.38**	193	.36**

(table continues)

Table 13 (continued)

Predictor variable	Code	Total		Inside definition		Outside definition	
		<i>N</i>	<i>R</i>	<i>N</i>	<i>R</i>	<i>N</i>	<i>R</i>
Superintendents' willingness to recommend hiring alternatively licensed assistant principal	No=0 Yes=1	370	.56**	175	.57**	195	.54**
Inside or outside definition group	Inside=1 Outside=2	379	.16**				
The number of schools in the superintendents' district	Numerical	341	.06	165	-.02	176	.12

* $p \leq .05$, ** $p \leq .01$

predictor variables that had the strongest significant correlations with superintendents' willingness to recommend hiring alternatively licensed principals. Superintendents' perceptions of the ability of alternatively licensed principals to lead instruction had the strongest correlation ($r = .75, p \leq .001$); however, superintendents' general attitude toward alternative licensure, superintendents' perceptions of community acceptance of alternatively licensed principals, and the willingness to hire under the given definition were also strong ($r = .70, p \leq .001, r = .71, p \leq .001, r = .73, p \leq .001$), respectively. In both groups, the superintendents would be more willing to recommend hiring an alternatively licensed principal if they believed this individual could be a school's instructional leader. The correlation between superintendents' general attitude toward alternative licensure and the criterion variable indicates superintendents who viewed alternative licensure in a positive light would be more willing to recommend hiring alternatively licensed principals. The third predictor variable, which was superintendents'

perceptions of community acceptance of alternatively licensed principals, was a significant factor for superintendents. Superintendents would be willing to recommend hiring alternatively licensed principals if they believed their community would accept these individuals. The fourth predictor--superintendents' willingness to hire under the given definition--that was significant indicates superintendents' responses were consistent with the criterion variable. If superintendents were willing to hire under the given definition, then they were willing to recommend hiring alternatively licensed principals.

Inter-correlations Among the Significant Predictor Variables

The principal components analysis was conducted to reduce the amount of shared variance between predictor variables. Although these precautions were taken, model specification errors were still possible. Therefore, the researcher computed Pearson correlation coefficients to determine which, if any, predictor variables correlated strongly with each other.

There were several strong correlations among the predictor variables. A strong correlation, as defined by the researcher, is greater than .60 ($p \leq .001$). The number of students in a district and the number of schools in a district had the strongest correlation ($r = .95, p \leq .001$). This result was expected by the researcher. The researcher ran regression analyses with both variables and with each variable, number of students and number of schools. Superintendents' perceptions of the ability of alternatively licensed principals to lead instruction had significant correlations with several predictor variables. The strongest were with superintendents' general attitude toward alternative licensure

($r = .75, p \leq .001$), superintendents' perceptions of the management capacity of alternatively licensed principals ($r = .65, p \leq .001$), superintendents' perceptions of the community acceptance of alternatively licensed principals ($r = .78, p \leq .001$), superintendents' perceptions of alternatively licensed principals' ability to understand and work within the educational environment ($r = .68, p \leq .001$), and willingness to hire under the given definition ($r = .62, p \leq .001$). The variables were expected to have some correlation. The predictor variables superintendents' general attitude toward alternative licensure had significant correlations with superintendents' perceptions of the management capacity of alternatively licensed principals ($r = .63, p \leq .001$), superintendents' perceptions of the community acceptance of alternatively licensed principals ($r = .64, p \leq .001$), and willingness to hire under the given definition ($r = .61, p \leq .001$). The weakest significant correlation existed between superintendents' perceptions of the specific leadership needs of the school district and superintendents' perceptions of the management capacity of alternatively licensed principals ($r = .12, p \leq .05$).

The researcher believed each set of variables, except for the correlation between the number of students and schools in a district, that possessed strong correlations was different conceptually; therefore, they remained as separate variables in the regression analysis. A Variation Inflation Factor (VIF) and tolerances were computed during the multiple regression analysis to further test for collinearity among predictor variables.

Dealing With Collinearity Among Predictor Variables

Model specification errors, such as including irrelevant variables, can be accounted for by dealing with issues of collinearity. Collinearity is a “mathematical dependence” (Yu, 2000, p. 1) among independent variables that is caused by the

inclusion of irrelevant variables in the model specification. Results of collinearity are highly correlated independent variables and variation inflation, which makes the R-square appear higher than it actually is (Yu, C.H., 2000). The Variation Inflation Factor (VIF) and tolerances were computed to determine which, if any, variables displayed signs of codependence. Ideally, variables of a model will have high tolerances and low VIF. A commonly accepted rule is the VIF should not be greater than 10 (Belsley, Kuh, & Welsch, 1980). Likewise, a small tolerance, usually less than 0.1, indicates the variable being tested is almost perfectly linear with other variables in the model; therefore, the inclusion of such a variable would be redundant. Either of the aforementioned tests in concert with large standard errors would indicate collinearity may be an issue.

The researcher tested for collinearity several different ways. The VIF for both predictor variables, number of students (18.86) and number of schools (18.00), exceeded 10 and their tolerances (.05 and .06, respectively) were less than 0.1. These results in concert with a strong bivariate correlation ($r = .95, p \leq .001$) between the two predictors indicated multicollinearity. This indicated redundant variables and was noted by the researcher.

All variables were included in the initial regression analysis; however, two other regression analyses were conducted. One analysis was conducted with the omission of the number of students and another analysis with the omission of the number of schools. All three regression analyses produced the same R-square (.72), but the adjusted R-square (.71) for the regression analysis that omitted the number of students and included the number of schools was closer to the R-square of .72. Therefore, this multiple linear regression model (19 predictor variables) was used for the study because of the reduction

in shrinkage, which is the difference between R square and the adjusted R square. A reduction in shrinkage means more confidence in the results; consequently, the results are generalizable to the population being studied.

The Regression of Superintendents' Willingness to Recommend Hiring Alternatively Licensed Principals on the Predictor Variables

A multiple regression analysis was conducted to evaluate how well the 19 predictor variables predicted superintendents' willingness to recommend hiring alternatively licensed principals. The linear combination of predictors was significantly related to superintendents' willingness to hire, $R^2 = .72$, $F(19, 292) = 41.14$, $p = .000$; while the sample multiple correlation coefficient was .85, indicating approximately 72% of variance of superintendents willingness to recommend hiring alternatively licensed principals can be explained by the 19 predictor variables (see Table 14)

Table 14

Analysis of Variance (ANOVA) Table for Regression Model

	Sum of squares	df	Mean square	F	p
Regression	781.61	19	41.14	40.20	.000 ^a
Residual	298.80	292	1.02		
Total	1080.42	311			

Note. ^a Predictor variables used in the ANOVA can be found in Table 15. The criterion variable was superintendents' willingness to recommend hiring alternatively licensed principals.

The predictors, unstandardized coefficients, standard error, standardized coefficients, t-values, p-values, VIF, and tolerances are in Table 15. The criterion variable was superintendents' willingness to recommend hiring alternatively licensed principals. The regression model included 19 predictor variables (past experiences hiring

Table 15

Regression Coefficients and Collinearity Statistics for the Regression of Willingness to Recommend Hiring Alternatively Licensed Principals on All Predictor Variables ($R^2 = .72$)

Predictor	Unstandardized coefficients		Standardized coefficients			Collinearity statistics	
	<i>b</i>	Std. error	Beta	<i>t</i>	<i>p</i>	Tolerance	VIF
(Constant)	-3.22	.83		-3.87	.00		
Superintendents' past experiences hiring alternatively licensed teachers	-.14	.13	-.04	-1.06	.29	.80	1.26
Superintendents' past experiences hiring alternatively licensed principals	1.02	.26	.13	3.99	.00	.85	1.18
The presence of an induction program for new principals	.16	.13	.04	1.25	.21	.86	1.16
The number of years as superintendent	.01	.01	.02	.69	.49	.91	1.10
Superintendents' perceptions of the ability of alternatively licensed principals to lead instruction	.94	.24	.26	3.90	.00	.21	4.75
Superintendents' perceptions of the supply of the principal applicant pool	.03	.12	.01	.22	.83	.78	1.28

(table continues)

Table 15 (*continued*)

Predictor	Unstandardized coefficients		Standardized coefficients			Collinearity statistics	
	<i>b</i>	Std. error	Beta	<i>t</i>	<i>p</i>	Tolerance	VIF
Superintendents' perceptions of the quality of traditional principal preparation programs	-.06	.14	-.01	-.40	.69	.80	1.25
Superintendents' general attitude toward alternative licensure	.68	.19	.20	3.65	.00	.33	3.08
Superintendents' perceptions of the management capacity of alternatively licensed principals	-.06	.18	-.01	-.32	.75	.47	2.13
Superintendents' perceptions of the community acceptance of alternatively licensed principals	.42	.18	.13	2.35	.02	.31	3.18
Superintendents' perception of the importance placed on whether a principal candidate fits the community	.15	.12	.04	1.23	.22	.89	1.12
Superintendents' perceptions of the specific leadership needs of the school district	-.02	.15	-.00	-.11	.91	.88	1.14

(table continues)

Table 15 (*continued*)

Predictor	Unstandardized coefficients		Standardized coefficients			Collinearity statistics	
	<i>b</i>	Std. error	Beta	<i>t</i>	<i>p</i>	Tolerance	VIF
Superintendents' perceptions of alternatively licensed principals' ability to understand and work within the educational environment	-.05	.16	-.01	-.31	.76	.48	2.09
Superintendents' willingness to hire under the given definition	1.16	.17	.31	6.65	.00	.43	2.31
District classification	-.00	.05	.00	-.01	.99	.77	1.29
The ability of superintendents to recommend hiring alternatively licensed principals in his or her district	.14	.13	.04	1.07	.29	.79	1.26
Superintendents' willingness to recommend hiring alternatively licensed assistant principal	.19	.16	.05	1.20	.23	.54	1.84
Inside v. outside definition group	-.04	.13	-.01	-.34	.73	.84	1.19
The number of schools in the superintendents' district	-.00	.00	-.03	-.72	.47	.80	1.25

alternatively licensed teachers and principals, the presence of a clear induction program, the number of years as superintendent, superintendents' perceptions of the ability of alternatively licensed principals to lead instruction, superintendents' perceptions of the supply of the principal applicant pool, superintendents' perceptions of the quality of the traditional principal preparation programs, superintendents' general attitude toward alternative licensure, superintendents' perceptions of the management capacity of alternatively licensed principals, superintendents' perceptions of the community acceptance of alternatively licensed principals, superintendents' perceptions of the importance placed on whether an alternatively licensed principal candidate fits the community, superintendents' perceptions of the specific leadership needs of the school district, superintendents' perceptions of alternatively licensed principals ability to understand and work within the educational environment, superintendents' willingness to hire under the given definition, district classification, the ability of superintendents to recommend hiring alternatively licensed principals in his or her district, superintendents' willingness to recommend hiring alternatively licensed assistant principals, inside or outside education group, and the number of schools in the district).

Five of the 19 measures were significant predictors of superintendents' willingness to recommend hiring alternatively licensed principals ($p \leq .001$). These predictors were superintendents' past experiences hiring alternatively licensed principals ($t = 3.99, p = .00$), superintendents' perceptions of the ability of alternatively licensed principals to lead instruction ($t = 3.90, p = .00$), superintendents' perceptions of the community acceptance of alternatively licensed principals ($t = 2.35, p = .02$), superintendents' general attitude toward alternative licensure ($t = 3.65, p = .00$), and

superintendents' willingness to hire under the given definition ($t = 6.65, p = .00$). The final regression equation was: $\hat{Y} = -3.22 + 1.02$ (superintendents' past experiences hiring alternatively licensed principals) $+ .94$ (superintendents' perceptions of the ability of alternatively licensed principals to lead instruction) $+ .68$ (superintendents' general attitude toward alternative licensure) $+ .42$ (superintendents' perceptions of the community acceptance of alternatively licensed principals) $+ 1.16$ (superintendents' willingness to hire under the given definition).

It can be inferred from these results that superintendents who had hired alternatively licensed principals would be willing to recommend hiring alternatively licensed principals in the future. Superintendents who believed alternatively licensed principals could be instructional leaders would be more willing to recommend hiring them. Superintendents who viewed alternative licensure favorably would be more willing to recommend hiring an alternatively licensed principal. Superintendents would be more willing to recommend hiring alternatively licensed principals if they believed their community would accept these individuals. Superintendents who declared they would hire an alternatively licensed principal under the given definition (inside education or outside education) indicated alternatively licensed principals stand a better chance of getting hired by these superintendents

The Regression of Superintendents' Willingness to Recommend Hiring Alternately

Licensed Principals on the Significant Predictor Variables

A goal of prediction would be to select the fewest number of variables that will make the biggest prediction. Therefore, following the original regression analysis, I ran another regression analysis using the five significant predictor variables. These five

variables explained 72% (adjusted R-square of .71) of the variance in superintendents' willingness to recommend hiring alternatively licensed principals compared to the 72% of the variance by the original 19 predictor variables (see Table 16). The results of the analysis of variance (ANOVA) can be found in Table 17. Therefore, the most parsimonious model would include only these five predictors.

Table 16

Regression Coefficients and Collinearity Statistics for the Regression of Willingness to Recommend Hiring Alternatively Licensed Principals on the Significant Predictor Variables ($R^2 = .72$)

Predictor	Unstandardized coefficients		Standardized coefficients			Collinearity statistics	
	<i>b</i>	Std. error	Beta	<i>t</i>	<i>p</i>	Tolerance	VIF
(Constant)	-2.804	.33		-8.44	.00		
Superintendents' past experiences hiring alternatively licensed principals	1.02	.23	.13	4.53	.00	.91	1.10
Superintendents' perceptions of the ability of alternatively licensed principals to lead instruction	.97	.19	.27	5.26	.00	.30	3.34
Superintendents' general attitude toward alternative licensure	.71	.15	.20	4.73	.00	.42	2.36
Superintendents' perceptions of the community acceptance of alternatively licensed principals	.36	.16	.11	2.35	.02	.34	2.93

(table continues)

Table 16 (*continued*)

Predictor	Unstandardized coefficients		Standardized coefficients			Collinearity statistics	
	<i>b</i>	Std. error	Beta	<i>t</i>	<i>p</i>	Tolerance	VIF
Superintendents' willingness to hire under the given definition	1.22	.15	.33	8.12	.00	.49	2.05

Table 17

Analysis of Variance (ANOVA) Table for Regression Model for the Significant Predictors

Model ^b		Sum of squares	df	Mean square	F	p
1	Regression	906.84	5	181.37	180.78	.00 ^a
	Residual	361.18	360	1.00		
	Total	1268.02	365			

Note. ^a The significant predictors are superintendents' past experiences hiring alternatively licensed principals, superintendents' perceptions of the ability of alternatively licensed principals to lead instruction, superintendents' general attitude toward alternative licensure in education, superintendents' perceptions of community acceptance of alternatively licensed principals, superintendents' willingness to recommend hiring under the given definition

Qualitative Findings

Several superintendents, mainly from the outside education group, emailed responses, either in addition to or in lieu of the questionnaire. These responses were impassioned and fervently for or against alternatively licensing principals; however, they were more often opposed. Many of their responses provided insight and augmented quantitative responses. These responses were coded and thematically categorized. The findings are described in the next section.

Findings from Email Responses by Superintendents

The most prevalent finding, which was consistent with the quantitative results, was superintendents' concerns about the ability of alternatively licensed principals to lead instruction. Several superintendents thought the questionnaire did not allow them to emphasize the extreme importance of the principal as instructional leader. As one superintendent stated:

The missing piece from your direction of your questionnaire is the extremely important role a principal plays in educational leadership in the building. In these days of instructional accountability, the principal must be the lead teacher in the building; if he or she has not been a classroom teacher and doesn't understand how to create curriculum, not to mention inspire and evaluate those who are teaching children, the building (and the school district) will become a well-oiled machine with no soul (ER 17, p. 4).

Superintendents opposed to alternative licensure believed a person from an alternative route would not have the specialized knowledge or credibility from the teachers necessary to be successful in education. They cited the difference between leading a business versus a school. One superintendent summed up the shortcomings, through his perspective, of alternatively licensed principals from either outside or inside definition as he stated:

It is extremely difficult for me to conceive of "non-traditional" routs [*sic*] to the principalship that would be effective except in extraordinarily unique cases. For example, someone who is a manager, but has never taught would not understand what teachers are faced with [everyday]; much less understand the culture of

schools. This would significantly impair their judgment and they would lack credibility with staff. A teacher who did not have some formal training in educational leadership would be missing important managerial knowledge-- school law would be a good example--not to mention important research and concepts related to leadership (ER 13, p. 4).

Another concern expressed by these superintendents focused on preparation programs. Many superintendents agreed that principal preparation programs provide a solid base upon which prospective principals can grow and mature into successful principals. However, they believe these programs do not prepare individuals to hit the ground running in the principalship. A superintendent from the outside definition group declared:

I do not believe ANY formal training that I have seen adequately prepares a principal to do the job well. However, I do think that a good graduate program in educational leadership does provide an important foundational base from which a good principal may emerge after several years of actually doing the job (ER 13, p. 3).

Along the same lines, some superintendents felt principal candidates cannot be adequately judged by the route to their license. They evaluate each case based on the individual and his or her characteristics and experiences, not on which route they obtained their license. A superintendent put it this way: "The fact of the matter is that all individuals who complete a traditional program will not necessarily be good principals and certainly, some individuals who complete a non-traditional program may become excellent principals" (ER 1, p. 1). Another superintendent expressed similar sentiments,

but on a much more personal level. He acknowledged, “Personally, I don’t like alternative licensure [of principals], but professionally, I would hire the best candidate regardless. It always comes down to the candidate, no matter how they are licensed” (ER 22, p. 6).

CHAPTER 4
DISCUSSION, POST-STUDY THEORY, SUGGESTIONS FOR FURTHER
RESEARCH, RECOMMENDATIONS FOR PRACTICE, LIMITATIONS OF THE
STUDY, AND REFLECTIONS

Many states have created avenues for alternatively licensed (non-traditional) principal candidates to enter the educational administration field. If superintendents, who are ultimately responsible for recommending the hiring of principals, will recommend hiring alternatively licensed principals, then these individuals would lead schools during an era of increased accountability in education.

The purpose of this study was to determine which variables explain variation in superintendents' willingness to recommend hiring alternatively licensed principals. The theory presented in Chapter 1 was revised, and a post-study theory with the significant predictor variables is offered. Conclusions based on findings, a discussion of the results, suggestions for further research, and limitations of the study are included in this chapter.

Discussion of Findings

The study included 380 superintendents, who were members of AASA in 2005, from 46 different states and one province. One hundred seventy-eight superintendents participated under the inside education definition and 202 participated under the outside education definition.

Nineteen predictors (*past experiences hiring alternatively licensed teachers and principals, the presence of a clear induction program, the number of years as superintendent, superintendents' perceptions of the ability of alternatively licensed principals to lead instruction, superintendents' perceptions of the supply of the principal applicant pool, superintendents' perceptions of the quality of the traditional principal preparation programs, superintendents' general attitude toward alternative licensure,*

superintendents' perceptions of the management capacity of alternatively licensed principals, superintendents' perceptions of the community acceptance of alternatively licensed principals, superintendents' perceptions of the importance placed on whether an alternatively licensed principal candidate fits the community, superintendents' perceptions of the specific leadership needs of the school district, superintendents' perceptions of alternatively licensed principals' ability to understand and work within the educational environment, superintendents' willingness to hire under the given definition, district classification, the ability of superintendents to recommend hiring alternatively licensed principals in his or her district, superintendents' willingness to recommend hiring alternatively licensed assistant principals, inside or outside education group, and the number of schools in the district) were used in the multiple regression analysis to explain variation in superintendents' willingness to recommend hiring alternatively licensed principals. The overall linear combination of these 19 predictors was significant ($R^2 = .72$, $F(19, 292) = 41.14$, $p = .000$) indicating these variables explained 72% of the total variance in superintendents' willingness to recommend hiring.

Regression analyses were conducted for both the inside and outside education groups. The overall linear combination (the outside group) of the 18 predictors (the 19 predictors less the inside-outside group variable) was significant ($R^2 = .78$, $F(18, 145) = 28.16$, $p = .000$) indicating these variables explained 78% of the total variance in superintendents' willingness to recommend hiring. The linear combination of the same predictors was also significant ($R^2 = .69$, $F(18, 129) = 16.20$, $p = .000$) for the inside education group illustrating these variables explained 69% of the total variance. Much more variance is explained in the outside group. A reason for this phenomenon might be

in the construction of the qualitative questionnaire used for theory development. Originally, the definition of an alternatively licensed principal focused on individuals unfamiliar with the educational environment. Therefore, the questions were developed with this definition and the assumptions that go with it. The definition and study was broadened after several presentations and discussions with superintendents who participated in the qualitative study.

The results of the regression analysis showed five variables--*superintendents' past experiences hiring alternatively licensed principals* ($t = 3.99, p = .00$), *superintendents' perceptions of the ability of alternatively licensed principals to lead instruction* ($t = 3.90, p = .00$), *superintendents' general attitude toward alternative licensure* ($t = 3.65, p = .00$), *superintendents' perceptions of the community acceptance of alternatively licensed principals* ($t = 2.35, p = .02$), and *superintendents' willingness to hire under the given definition* ($t = 6.65, p = .00$)--were significantly related to superintendents' willingness to recommend hiring alternatively licensed principals. Given the model tested, these variables are the best predictors of the likelihood that an alternatively licensed principal would be recommended for employment in a school district. Table 18 is a summary of the findings.

Discussion Addressing the Predictor Variables

Following a study conducted by Kufel et al. (2005), several presentations at conferences, and careful deliberations, a decision was made to include two definitions of alternatively licensed principal (inside education definition vs. outside education definition). An independent-samples t test was conducted between the inside education

Table 18

Research From This Study That can be Added to the Body of Literature for Each Predictor Variable

Predictor variable	Date	Type of study, data source	Useable sample	Findings
Superintendents' past experiences hiring alternatively licensed teachers	2007	Questionnaire National population of AASA members who were superintendents in 2005.	N=374	Had a non-significant relationship to willingness to support hiring alternatively certified principals.
Superintendents' past experiences hiring alternatively licensed principals	2007	Questionnaire National population of AASA members who were superintendents in 2005.	N=378	Had a significant relationship to willingness to support hiring alternatively certified principals.
The presence of an induction program for new principals	2007	Questionnaire National population of AASA members who were superintendents in 2005.	N=379	Had a non-significant relationship to willingness to support hiring alternatively certified principals.
The number of years as superintendent	2007	Questionnaire National population of AASA members who were superintendents in 2005.	N=322	Had a non-significant relationship to willingness to support hiring alternatively certified principals.
Superintendents' perceptions of the ability of alternatively licensed principals to lead instruction	2007	Questionnaire National population of AASA members who were superintendents in 2005.	N=378	Had a significant relationship to willingness to support hiring alternatively certified principals.

(table continues)

Table 18 (*continued*)

Predictor variable	Date	Type of study, data source	Useable sample	Findings
Superintendents' perceptions of the supply of the principal applicant pool	2007	Questionnaire National population of AASA members who were superintendents in 2005.	<i>N</i> =378	Had a non-significant relationship to willingness to support hiring alternatively certified principals.
Superintendents' perceptions of the quality of traditional principal preparation programs	2007	Questionnaire National population of AASA members who were superintendents in 2005.	<i>N</i> =378	Had a non-significant relationship to willingness to support hiring alternatively certified principals.
Superintendents' general attitude toward alternative licensure	2007	Questionnaire National population of AASA members who were superintendents in 2005.	<i>N</i> =378	Had a significant relationship to willingness to support hiring alternatively certified principals.
Superintendents' perceptions of the management capacity of alternatively licensed principals	2007	Questionnaire National population of AASA members who were superintendents in 2005.	<i>N</i> =378	Had a non-significant relationship to willingness to support hiring alternatively certified principals.
Superintendents' perceptions of community acceptance of alternatively licensed principals	2007	Questionnaire National population of AASA members who were superintendents in 2005.	<i>N</i> =378	Had a significant relationship to willingness to support hiring alternatively certified principals.
Superintendents' perceptions of the importance placed on whether a principal fits the community	2007	Questionnaire National population of AASA members who were superintendents in 2005.	<i>N</i> =375	Had a non-significant relationship to willingness to support hiring alternatively certified principals.

(table continues)

Table 18 (*continued*)

Predictor variable	Date	Type of study, data source	Useable sample	Findings
Superintendents' perceptions of the specific leadership needs of the school district	2007	Questionnaire National population of AASA members who were superintendents in 2005.	<i>N</i> =376	Had a non-significant relationship to willingness to support hiring alternatively certified principals.
Superintendents' perceptions of the alternatively licensed principals' ability to understand and work within the educational environment	2007	Questionnaire National population of AASA members who were superintendents in 2005.	<i>N</i> =378	Had a non-significant relationship to willingness to support hiring alternatively certified principals.
Superintendents' willingness to hire an alternatively licensed principal under the given definition	2007	Questionnaire National population of AASA members who were superintendents in 2005.	<i>N</i> =366	Had a significant relationship to willingness to support hiring alternatively certified principals.
District classification	2007	Questionnaire National population of AASA members who were superintendents in 2005.	<i>N</i> =371	Had a non-significant relationship to willingness to support hiring alternatively certified principals.
The ability of superintendents to recommend hiring alternatively licensed principals under the given definition	2007	Questionnaire National population of AASA members who were superintendents in 2005.	<i>N</i> =368	Had a non-significant relationship to willingness to support hiring alternatively certified principals.

(table continues)

Table 18 (continued)

Predictor variable	Date	Type of study, data source	Useable sample	Findings
Superintendents' willingness to recommend hiring an alternatively licensed assistant principal	2007	Questionnaire National population of AASA members who were superintendents in 2005.	<i>N</i> =370	Had a non-significant relationship to willingness to support hiring alternatively certified principals.
Inside or outside definition group	2007	Questionnaire National population of AASA members who were superintendents in 2005.	<i>N</i> =379	Had a non-significant relationship to willingness to support hiring alternatively certified principals.
The number of schools in the superintendents' district	2007	Questionnaire National population of AASA members who were superintendents in 2005.	<i>N</i> =341	Had a non-significant relationship to willingness to support hiring alternatively certified principals.

and outside education groups for each predictor variable. As expected, there were several significant differences between the two definition groups.

A significant difference existed between the two groups on superintendents' perceptions of the ability of alternatively licensed principals to lead instruction ($t(376.97) = -4.80, p \leq .001$). Not surprisingly, superintendents given the inside definition believed alternatively licensed principals were more likely to have the ability to lead a school in instruction. The superintendents from the outside definition group thought alternatively licensed principals new to education would have more difficulty being an instructional leader. This was expected because these outsiders would not have a knowledge base

acquired through educational programs or experience. As one superintendent, in a study conducted by Kufel et al. (2005), stated:

I believe that the education of children is one of the single most complex things that we as human beings do. I believe that there is a body of knowledge relative to how you teach children and how they learn. I think you get that through experience in doing it, and you get it through, to be honest ... structured coursework and that kind of work. That's the point at which, in our district, we are very serious about our principals being instructional leaders. That is the single biggest expectation. (p. 22)

Another expected difference occurred between the two groups on superintendents' perceptions of community acceptance of alternatively licensed principals ($t(377) = -3.98, p \leq .001$). Neither group thought their respective communities would be welcoming of an alternatively licensed principal, but those in the outside definition group viewed the acceptance less favorably. This finding is consistent with research (Kufel et al., 2005) in which both groups were concerned about the community's reaction to alternatively licensed principals, but the outside group was more adamant in their opposition.

A significant difference occurred between the groups on superintendents' perceptions of the supply of the principal applicant pool ($t(377) = -2.06, p \leq .05$). Superintendents in the inside group had a higher mean, which meant they perceived they were experiencing more of a shortage of principal applicants than those in the outside definition group. Therefore, because of this perception, those in the inside group might be more willing to recommend hiring alternatively licensed principals.

I did not expect a significant difference to occur in either the superintendents' general attitude toward alternative licensure or superintendents' perceptions of the quality of traditional principal preparation programs variables; however, the inside and outside definition groups differed significantly on both variables. Unexpectedly, the general attitude toward alternative licensure for both groups was favorable, but the inside group was more favorable than the outside group ($t(376.72) = -1.98, p \leq .05$). Many superintendents have had experience with alternatively licensed (certified) teachers or feel strongly that alternative licensure is a concept that can be utilized in education. A slight difference occurred between the two groups on their views about the quality of traditional principal preparation programs ($t(377) = -1.97, p \leq .05$). Both groups agreed that traditional programs were of high quality, but the inside group viewed them more favorably.

Several key findings were ascertained about the predictor variables from the analysis of the univariate statistics. The inside education definition group scored the highest mean on the predictor variable *superintendents' perceptions of the importance placed on whether an alternatively licensed principal candidate fits the community*. This indicated superintendents believed a key component to the employment of any principal would be whether or not a principal fits the surrounding community. The lowest means, scored by the inside definition group, were *superintendents' perceptions of alternatively licensed principals' ability to understand and work within the educational environment* ($M = 2.50$) followed closely by *superintendents' perceptions of the community acceptance of alternatively licensed principals* ($M = 2.52$). A low mean for *superintendents' perceptions of alternatively licensed principals' ability to understand*

and work within the educational environment suggested superintendents thought alternatively licensed principals are not able to understand and work within educational context. Superintendents' low mean for *superintendents' perceptions of the community acceptance of alternatively licensed principals* indicates they do not believe their communities would be accepting of alternatively licensed principals.

The outside education definition group displayed similar results to the inside group. The predictor variable *superintendents' perceptions of the importance placed on whether an alternatively licensed principal candidate fits the community* had the highest mean; however, it was not statistically different from the inside education definition group. The lowest mean, by far, was found in the predictor *superintendents' perceptions of the community acceptance of alternatively licensed principals*, and it was significantly different from the mean found in the inside education definition group $t(-3.98), p \leq .001$. This indicates that although *superintendents' perceptions of the community acceptance of alternatively licensed principals* is one of the lowest means for the inside group, there is a significant difference between the two groups and superintendents, given the outside definition, believe their communities are even less likely than those under the inside definition to accept alternatively licensed principals.

Discussion Addressing the Literature

Over several years, I developed a theory to explain variation in superintendents' willingness to recommend hiring alternatively licensed principals. The evolution of my theory came as I reviewed studies, read psychology articles and books, made presentations, had formal and informal conversations, and most importantly, conducted a qualitative study. Through this process, I developed a theory (see Figure 2, Chapter 1)

hypothesizing 19 variables (organized around five domains) that predict superintendents' willingness to recommend hiring alternatively licensed principals.

Originally, 10 predictor variables were used to organize the Likert-type items. Following data collection, a principal components analysis was conducted to determine how the items loaded. After this analysis, one predictor variable-- superintendents' perceptions of the supply of the principal applicant pool--was collapsed and nine predictor variables were formed. Superintendents' perceptions of the supply of the principal applicant pool was originally two separate variables, one measuring the quantity of the applicant pool and one measuring the quality of the applicant pool. Additionally, many of the items purported to measure superintendents' perceptions of the leadership ability of alternatively licensed principals loaded with superintendents' perceptions of the ability of alternatively licensed principals to lead instruction, which was the largest scale. The result was that the former variable was changed to superintendents' perceptions of the management capacity of alternatively licensed principals.

The items were formed into scales to measure the predictor variables. These scales became the primary variables in the theory and the regression model. Along with these nine variables, 10 additional variables (eight categorical and two continuous) were identified as having possible effects on the willingness of superintendents to recommend hiring alternatively licensed principals. These 19 variables (continuous and categorical) were used in the final analysis.

The literature surrounding the alternative licensing of principals is scarce. In the next section, I will describe the post-study theory based on the significant findings.

The Post-Study Theory

A post-study theory was developed based on the results of the multiple linear regression analysis. Practitioners, legislatures, faculty in principal preparation programs, and future researchers may find the theory beneficial in guiding policy development at state and local levels and hiring practices in school systems. The new theory (see Figure 16) contains the variables that displayed a significant relationship with superintendents' willingness to recommend hiring alternatively licensed principals. The underlying assumption of this theory is that the variables predict the willingness of superintendents to recommend hiring alternatively licensed principals, and the willingness of superintendents to recommend hiring alternatively licensed principals predicts the actual act of hiring an alternatively licensed principal in the superintendents' school district.

It should be noted that none of the variables in the domain for *conditions* under which superintendents would be willing to recommend hiring alternatively licensed principals were statistically significant. Therefore, after the regression analysis, this domain was omitted from the final post-study theory. The variables organized about their domains are presented in Figure 17.

Implications for Practice

A strong relationship existed between superintendents' willingness to recommend hiring alternatively licensed principals and superintendents' perceptions of the ability of alternatively licensed principals to lead instruction. This area included superintendents' perceptions of alternatively licensed principals' ability to guide and evaluate effective instructional strategies, develop an appropriate school vision, and increase student achievement. Superintendents were willing to recommend hiring alternatively licensed

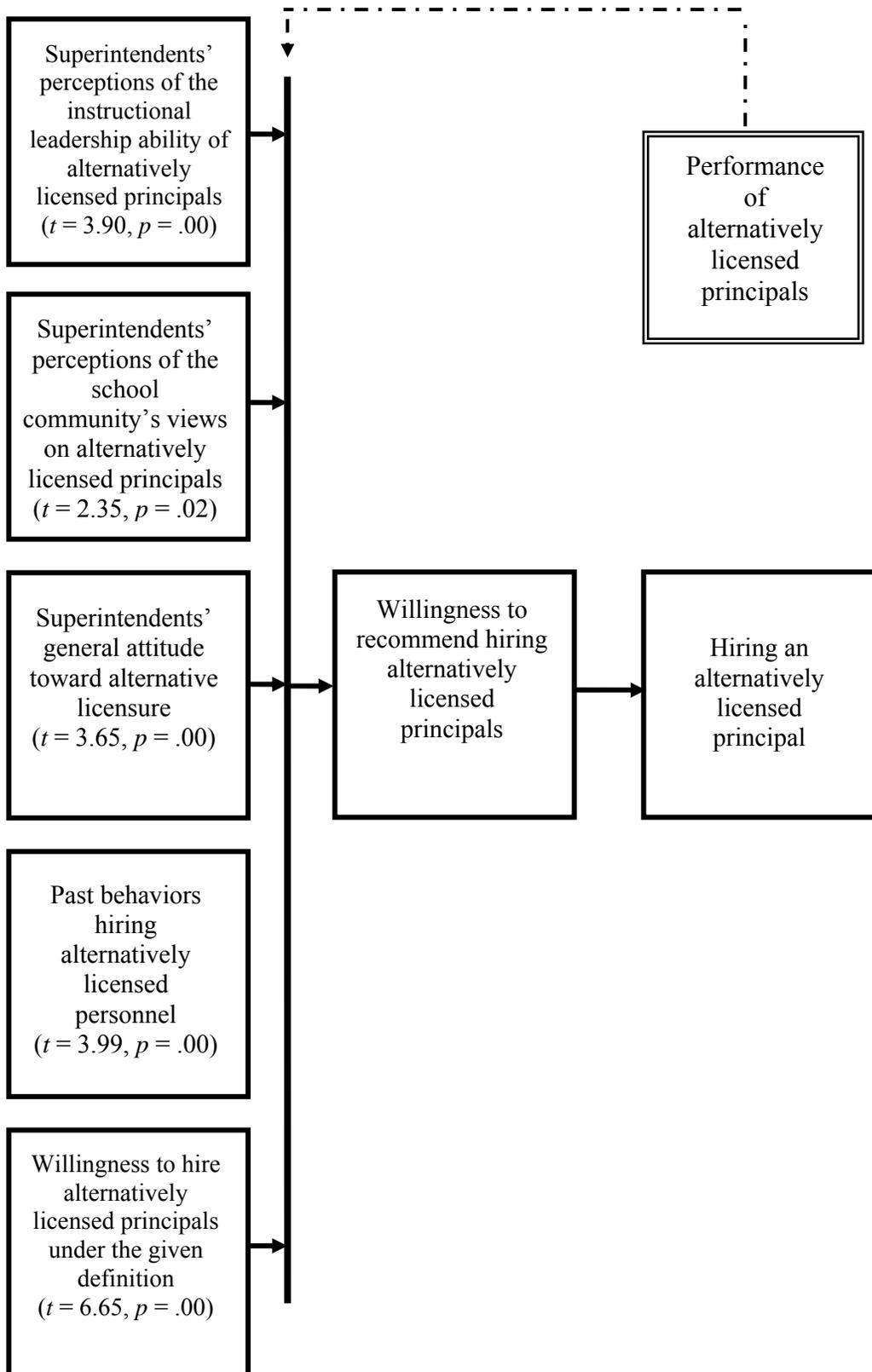


Figure 16. Kufel's post-study theory explaining the willingness of superintendents to recommend hiring alternatively licensed principals. Significant predictors and their relationships to willingness of superintendents to recommend hiring alternatively licensed principals.

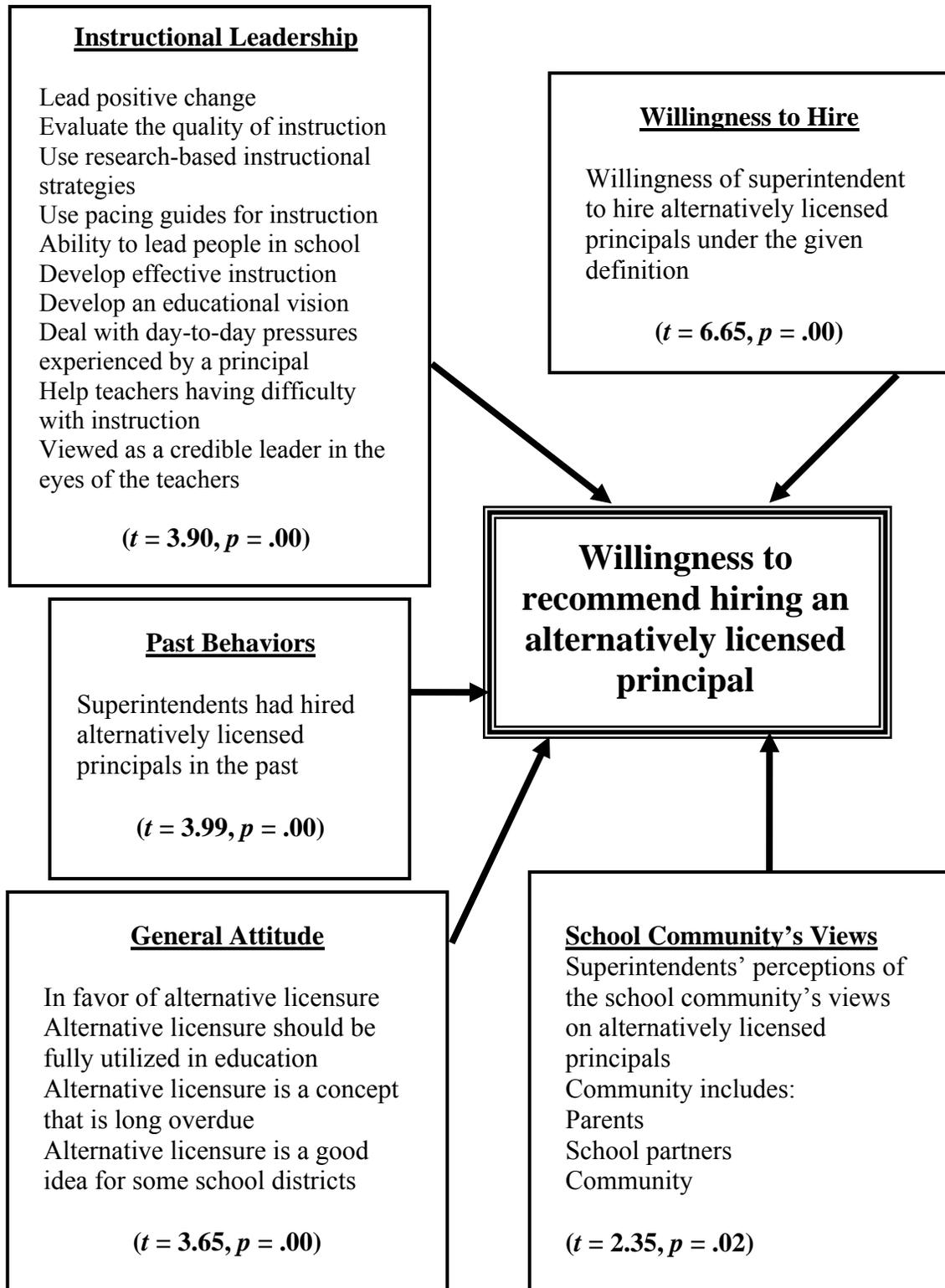


Figure 17. A summary of the variables identified by A.P. Kufel that predict superintendents' willingness to recommend hiring alternatively licensed principals.

principals if they believed they had the capacity to lead instruction. Alternatively licensed principal candidates seeking employment must be aware of this concern and take the necessary steps to become instructional leaders. Therefore, alternatively licensed principals must convince superintendents they are capable of leading instruction, but also perform effectively once they have been hired.

Part of this burden falls directly on principal preparation programs that train alternatively licensed principals. Based on my findings, the focal point of these programs must be instructional leadership. Some alternatively licensed principals might have requisite leadership skills and experiences to lead a school, but as one superintendent stated:

My first thought when I hear somebody's coming from an outside position is that they may not have enough knowledge of that [education]. We can't fumble or have a person take a year or two or three years to be brought up to speed, and have the school suffer for that long (Kufel et al., 2005, p. 23).

A prospective principal, traditionally or alternatively licensed, must be knowledgeable of matters pertaining to instruction, thus earning employment in K-12 education and allowing a smooth transition into the principalship. These principals must sustain or increase student achievement while challenging teachers to become better educators from day one. If they are not equipped to meet these challenges, then our students, teachers, and communities will ultimately suffer. Through the eyes of superintendents, this is not acceptable.

In fact, I think these results suggest superintendents believe strongly, principals, overall, need to be well versed in instructional leadership. Many principal preparation

programs are accused of not providing students (soon to be principals) the necessary training in instructional leadership (Levine, 2005). Too often, the critics say, these preparation programs focus on the same coursework that has been taught the same way for years (Levine, 2005; Southern Regional Education Board 2006). I believe this research, along with other works, can provide the impetus for reflection and positive change among principal preparation programs nationwide.

The other predictor variables that exhibited a strong relationship with superintendents' willingness to recommend hiring alternatively licensed principals were *superintendents' general attitudes toward alternative licensure, superintendents' perceptions of the community acceptance of alternatively licensed principals, and superintendents' past experiences hiring alternatively licensed principals.*

Superintendents' general attitudes toward alternative licensure had a strong relationship with the criterion variable. These attitudes towards alternative licensure, either positive or negative, have a direct impact on whether they entertain the employment of an alternatively licensed principal. General attitudes included a continuum of beliefs between the two extremes that alternative licensure has no place in education and alternative licensure should be fully utilized in education. Overall, superintendents held neutral, but slightly positive, views toward alternative licensure. An analysis of the data indicates that superintendents who view alternatively licensed principals favorably would be more likely to recommend hiring these individuals. Conversely, if superintendents view alternative licensure negatively, they would be less likely to recommend hiring alternatively licensed principals. Alternatively licensed principals should be cognizant of the impact superintendents' attitudes toward alternative

licensure in education have on the hiring process. This could influence the approach these individuals take to the interview process.

Superintendents' perceptions of the community acceptance of alternatively licensed principals had a strong relationship with the criterion variable. The community included parents, school partners, and the community as a whole. Alternatively licensed principals would not be hired if superintendents perceived the surrounding community would not accept them. These individuals would have difficulty getting an interview in communities that are opposed to alternative licensure. On the contrary, if superintendents were in districts that were in favor of alternative licensure, then the chance of an alternatively licensed principal getting hired would increase. In a study conducted by Kufel et al. (2004), alternatively licensed principals stand a better chance of getting hired “in a very politically conservative community that favors any number of alternative education practices” (p. 5) or in a community that does not have confidence in the educational system. Alternatively licensed principals should actively seek out these communities before they apply for principal positions. If they do, their chances of getting an interview and being hired would strengthen.

Another predictor variable that influences superintendents' willingness to recommend hiring alternatively licensed principals is *past experiences hiring alternatively licensed principals*. The results from this study suggest superintendents who have hired alternatively licensed principals in the past are more willing to recommend hiring them in the future. Therefore, alternatively licensed principals stand the best chance of being hired in districts where superintendents have previously recommended the hiring of alternatively licensed principals. Research regarding past hiring habits

should be done by alternatively licensed principals when they are choosing positions to apply for. Past behaviors, sometimes called habits, serve as effective predictors of behavior or willingness to behave in a certain manner (Ouellette & Wood, 1998). A negative of past behaviors is they might bias the recruiting and screening process against alternatively licensed principals, thus perpetuating preconceptions superintendents have toward these individuals. Several superintendents interviewed by Kufel et al. (2004) admitted they had never considered an alternatively licensed principal for a job because they preferred traditionally licensed principals, and their district had a surplus of quality candidates. The analysis of the results indicates alternatively licensed principals should not apply to school districts in which the superintendent has never recommended hiring an alternatively licensed principal.

Recommendations for Future Research and Training

My research is one of many studies being conducted that looks at the feasibility of alternative licensure of school principals from different perspectives. A theory has been developed, tested, and revised that can be used by future researchers interested in alternative licensure. To develop the theory, I conducted a qualitative study based on data from several interviews using an interview protocol. As observable in Hartley's (2007) work, the interview protocol and theory have been and can be refined to meet the needs of the researcher. The procedures I followed can be duplicated in future studies on alternative licensure.

Following the qualitative study, an instrument was constructed to test the model. Measures and items used for my instrument should be reviewed and refined to improve future studies. This model has been effective in predicting variation in superintendents'

willingness to recommend hiring alternatively licensed principals. Other areas of interest, including principal preparation and legislation, for future studies might include:

- Thirteen items were used to measure one predictor variable, *superintendents' perceptions of the ability of alternatively licensed principals to lead instruction*. Many of these items could be omitted from future studies while maintaining a high reliability. This could contribute to a higher response rate and a less cumbersome questionnaire for participants.
- This study supports the assertion that superintendents believe instructional leadership is an integral factor of the success of principals. Levine (2005) suggests principal preparation programs are antiquated and focus on management as opposed to instruction. Based on this research, I believe more research about the current status of preparation programs must be conducted to determine whether instructional leadership is a major focus in the preparation of future principals. Furthermore, are these principals successful, in terms of student achievement, once they enter the principalship?
- In this study, *superintendents' perceptions of the community acceptance of alternatively licensed principals* was a significant predictor in superintendents' willingness to recommend hiring alternatively licensed principals. It can be presumed superintendents believe the community's views of and the communication with a principal are integral factors in the success of principals. Likewise, in a study conducted by Kufel et al. (2005), several superintendents thought preparation programs should focus training on community relations. I

- think principal preparation programs should take a more direct approach to preparing principals who can effectively interact with the community.
- The significant predictors fell under the domains dealing with concerns superintendents had if alternatively licensed principals were hired. Future studies should place more of an emphasis on these concerns rather than conditions under which they would be willing to hire. These concerns are the ability of alternatively licensed principals to be instructional leaders, to understand and work within the educational context, and to be accepted by the surrounding community.
 - Many districts across the nation are experiencing a shortage of principal applicants--some in quantity, many in quality (Roza, Celio, Harvey, & Wishon, 2003). Although it was not found to be a significant predictor in this study, I believe superintendents' perceptions of the supply of the principal applicant pool should be examined in future studies. In a study conducted by Hartley (2007), district human resource directors were more willing to hire alternatively certified principals if their district was experiencing a shortage in the quality of principal applicants. It is possible that the supply problem is not acute enough at this time for superintendents to begin to entertain alternative hiring practices.
 - A major reason for this study was to inform faculty in principal preparation programs, district personnel who are charged with training alternatively licensed principals once they are hired, and state and federal policy makers about alternative licensure of principals. Similar studies, using an improved model, should be conducted from perspectives other than superintendents. First and

foremost, I think teachers should be studied. Several superintendents considered the views of teachers the most important because they would be working with the alternatively licensed principal on a daily basis (Kufel et al., 2005). Others' attitudes that may be studied are assistant principals, students, central office personnel, and the community.

- There is a great deal of research about alternative licensure for teachers, but little has been conducted on alternative licensure for principals. Many school districts around major cities--New York City, Chicago, Washington D.C., Baltimore, and Oakland--have resorted to training prospective principals in an alternative method (New Leaders for New Schools, 2004). Programs such as New Leaders for New Schools have been around for several years, and little research has been conducted to determine its success. Issues that should be pursued include retention rate of these principals--are they staying in education? If not, why are they leaving? Do these schools meet Adequate Yearly Progress (AYP)? Has student achievement increased? Are more or less students in these schools going on to college? Are more students taking and passing Advanced Placement classes? These are just a few of the questions that should be answered when determining whether alternative licensure for school principals has been successful.
- Many superintendents did not respond to the questionnaire, but provided a wealth of constructive criticism. During the trial administration, 30 superintendents were queried to participate, but only 10 actually participated. Future researchers should

emphasize the importance of feedback and persuade the participants in the trial administration to be brutally honest.

- This research could be conducted with superintendents under the purview of different levels (e.g., elementary vs. secondary). Analysis of the qualitative findings suggest superintendents might be more willing to hire an alternatively licensed principal as a high school principal (manager) as opposed to an elementary principal who is seen as a true instructional leader.
- Several of the participants took the initiative to elaborate on their responses by emailing other concerns or comments they had about alternatively licensing principals. Many of these qualitative findings, such as instructional leadership, coincide with the quantitative results and could be analyzed further through an additional qualitative study.

The overall response rate for this study was 35.88 percent. I was pleased with this percentage and think it was above average for superintendents. Another 38 superintendents responded to the email correspondence, but did not fill out the questionnaire for various reasons. Their responses were analyzed qualitatively and the findings are included in Chapter 3. Several of their suggestions could be used to increase the response rate. My questionnaires were emailed between early November and mid-January. There are several holidays during that time period, which may have affected the response rate. I would suggest beginning the study in the early months of the school year or after early January and before spring break.

Limitations of the Study

There were several limitations of this study. I anticipated and expected a low response rate (36%); therefore, I compensated by selecting a large sample (1200 superintendents). Based on my data, I am confident I have a good representation of the demographic characteristics of superintendents nationwide. I was the first of many researchers to study alternatively licensing principals from Virginia Tech. Consequently, I came across many obstacles that could have been avoided had I followed someone's lead. I chose to use alternatively licensed principals as opposed to an alternatively licensed principal, which the latter, I believe, allows participants to think of an exception to the rule. Some superintendents who participated expressed concerns about the terminology. This may have prevented them from responding how I intended. The questionnaire was based on a developed theory and did not allow for further elaboration by the respondents. Some superintendents emailed responses because they felt unfulfilled when they submitted the questionnaire. If I were to conduct this study again, I would put in a provision that invites them to email additional concerns or comments. In the end, this limitation strengthened my understanding of how to conduct research on this topic.

Reflections

The predictor with a strong impact on whether superintendents are willing to recommend hiring alternatively licensed principals is *superintendents' perceptions of alternatively licensed principals' ability to lead instruction*. Superintendents expect the principal to be the instructional leader, and unless they feel confident an alternatively licensed principal has this capacity, this individual will not be hired. Consequently, programs preparing alternatively licensed principals should focus their training on

instructional leadership. Alternatively licensed principals who are prepared as instructional leaders and can convince superintendents they can lead instruction stand the best chance of getting hired.

Additionally, if superintendents view alternative licensure favorable, perceive their school community views alternatively licensure favorably, or have hired alternatively licensed principals in the past, then they will be more likely to recommend hiring alternatively licensed principals in the future.

Alternative licensure for principals is an interesting concept that is worth exploring. I think individuals trained through an alternative route can bring diversity and potentially, a different perspective to education. I believe those in education, especially those who prepare educational administrators, are threatened by the alternate route to principal preparation. On the contrary, I think alternative licensure creates opportunities. The preparation of alternatively licensed principals is paramount to their success and will have to be improved, which I believe creates opportunities for principal preparation programs and researchers. Individuals who enter these programs must be hand-selected and put through a rigorous preparation program tailored for a K-12 administrator.

Over time the door to the principalship will slowly open, and the first alternatively licensed principals to enter bear most of the burden of gaining superintendents' confidence. Superintendents who gain confidence in alternatively licensed principals will be more likely to hire others as principals. Success by these individuals, as instructional leaders, will further increase the confidence of superintendents and in turn, encourage community acceptance. It might even change prejudices some hold toward alternative licensure in education. I believe superintendents will always choose a principal whom

they believe is the right fit for the school district and community, regardless of the person's route to licensure. However, alternatively licensed principals will be under constant scrutiny by the community, so these individuals must be exceptional. If the hiring of alternatively licensed principals becomes more accepted, then the overall willingness of superintendents to hire these individuals will increase.

I was pleased with the amount of variance I explained in superintendents' willingness to recommend hiring alternatively licensed principals and the theory I developed. I was slightly disappointed more of the identified predictor variables were not significant because the development of a theory, with the identification of domains and predictor variables, took a great deal of time. However, I consider this a thorough piece of research that included a qualitative study, development of a theory and questionnaire, and this, the quantitative study.

REFERENCES

- Aiken, L. R. (1996). *Rating scales and checklists: Evaluating behavior, personality, and attitudes*. New York: Wiley.
- Ajzen, I. (1987). Attitudes, traits, and actions: Dispositional prediction of behavior in personality and social psychology. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 20, pp. 1-63). San Diego, CA: Academic Press.
- Ajzen, I., & Fishbein, M. (1977). Attitude-behavior relations: A theoretical analysis and review of empirical research. *Psychological Bulletin*, 84, 888-918.
- Anthes, K. (2004). *Administrator license requirements, portability, waivers, and alternative certification*. Education Commission of the States. Denver, CO.
Retrieved March 19, 2005 from
<http://www.ecs.org/clearinghouse/50/85/5085.htm>.
- Bargh, J. A. (1989). Conditional automaticity: Varieties of automatic influence in social perception and cognition. In J. S. Uleman & J. A. Bargh (Eds.), *Unintended thought* (pp. 3-51). New York: Guilford Press.
- Belsley, D. A., Kuh, E., & Welsch, R. E. (1980). *Regression diagnostics : Identifying influential data and sources of collinearity*. New York: John Wiley & Sons.
- Crocker, L., & Algina, J. (1986). *Introduction to classical and modern test theory*. New York: Thompson Learning.
- Darling-Hammond, L. (2000). *Teacher quality and student achievement: A review of state policy evidence*. Retrieved March 18, 2005, from
<http://www.tcrecord.org/content.asp?contentid=10531>.

- Darling-Hammond, L., Berry, B., & Thoreson, A. (2001). Does teacher certification matter: Evaluating the evidence? *Educational Evaluation and Policy Analysis*, 23(1), 57-77.
- Dillman, D. A. (2000). *Mail and internet surveys: The tailored design method* (2nd ed.). New York: Wiley.
- Eagly, A. H., & Chaiken, S. (1993). *The psychology of attitudes*. Fort Worth, TX: Harcourt Brace Jovanovich.
- Eagly, A. H., & Chaiken, S. (1998). Attitude structure and function. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *The handbook of social psychology* (4th ed., Vol. 1, pp. 269-322). New York: McGraw-Hill.
- Farkas, S., Johnson, J., Duffett, A., Syat, B., & Vine, J. (2003). *Rolling up their sleeves: Superintendents and principals talk about what's needed to fix public schools*. New York: Public Agenda. Retrieved on March 19, 2005, from http://www.publicagenda.org/research/research_reports_details2.cfm?list=9.
- Feistritzer, C. E. (2005). *Alternative teacher certification: A state by state analysis, 2005*. Washington, DC: National Center for Education Information. Introduction retrieved March 18, 2005, from <http://www.ncei.com/introduction05.html>.
- Feistritzer, C. E. (2007). *Alternative teacher certification: A state by state analysis, 2007*. Washington, DC: National Center for Education Information. Introduction retrieved August 14, 2007, from <http://www.teach-now.org/intro.cfm>.
- Fenwick, L. T., & Pierce, M. C. (2001). The principal shortage: Crisis or opportunity? *Principal*, 80(4), 24-32.

- Goldhaber, D. D., & Brewer, D. J. (1997). Evaluating the effect of teacher degree level on educational performance. *National Center for Educational Statistics*. Retrieved February 26, 2005, from <http://nces.ed.gov/pubs97/975351.pdf>.
- Goldhaber, D. D., & Brewer, D. J. (2000). Does teacher certification matter? High school teacher certification status and student achievement. *Educational Evaluation and Policy Analysis*, 22(2), 129-145.
- Haahr, Mads (n.d.). Random.org. Retrieved June 7, 2005 from <http://random.org/nform.html>.
- Hale, E., & Moorman, H. (2003). *Preparing school principals: A national perspective on policy and program innovations*. Edwardsville, IL: Institute for Educational Leadership, Washington, DC and Illinois Education Research Council, Edwardsville, IL. Retrieved January 30, 2005, from <http://www.iel.org/pubs/preparingprincipals.pdf#search=%22Hale%20and%20Moorman%20preparing%20school%22>.
- Hess, F. M. (2003). Lifting the barrier: Eliminating the state-mandated licensure of principals and superintendents is the first step in recruiting and training a generation of leaders capable of transforming America's schools. *Education Next*, 3(4), 12-19.
- Herrington, C. D., & Wills, B. K. (2005). Decertifying the principalship: The politics of administrator preparation in Florida. *Educational Policy*, 19(1), 181-200.
- Kraus, S. J. (1995). Attitudes and the prediction of behavior: A meta-analysis of the empirical literature. *Personality and Social Psychology Bulletin*, 21, 58-75.

- Kufel, A. P., Gaudreau, P. A., & Parks, D. J. (2004). *School superintendents' beliefs about alternative licensure of school principals*. Paper presented at the annual meeting of the National Council of Professors in Educational Administration, Branson, MO, August, 2004.
- Kufel, A. P., Gaudreau, P. A., & Parks, D. J. (2005). *Hiring alternatively licensed principals: Superintendents' concerns and conditions for employment*. Paper presented at the annual meeting of the American Educational Research Association, Montreal, Quebec, April, 2005.
- Laczko-Kerr, I., & Berliner, D. C. (2003). In harm's way: How undercertified teachers hurt their students. *Educational Leadership*, 60(8), 34-39.
- Lane, D. M. (n.d). *HyperStat Online Statistics Textbook*. Retrieved May 10, 2005, from <http://davidmlane.com/hyperstat/A79766.html>.
- Levin, D., Honeggar, S., & Duncan, T. G. (2004). *The secretary's third annual report on teacher quality*. Washington, DC: U.S. Department of Education.
- Levine, A. (2005). *Educating school leaders*. Retrieved March 17, 2005, from http://edschools.org/reports_leaders.htm. Washington, DC: The Education School Project.
- Likert, R. (1932). *A technique for the measurement of attitudes*. New York: Columbia University Press.
- Logan, G.D. (1989). Automaticity and cognitive control. In J. S. Uleman & J. A. Bargh (Eds.), *Unintended thought* (pp. 52-74). New York: Guilford Press.

- Lord, C. G., Lepper, M. R., & Mackie, D. M. (1984). Attitude prototypes as determinants of attitude-behavior consistency. *Journal of Personality and Social Psychology*, *37*, 2098-2109.
- McGuire, M. Y. (2002). *Elevating educational leadership task force report* (Report issued to the Michigan Board of Education). Lansing, MI: Michigan Department of Education.
- Mitgang, L. D. (2003). *Beyond the pipeline: Getting the principals we need, where they are needed most*. The Wallace Foundation. Retrieved July 26, 2004, from <http://www.wallacefoundation.org/WF/KnowledgeCenter/KnowledgeTopics/EducationLeadership/BeyondThePipeline.htm>.
- New Leaders for New Schools (n.d.). Retrieved March 9, 2005, from <http://www.nlms.org/NLWeb/Index.jsp>.
- Olson, J. M., & Maio, G. R. (2003). Attitudes in social behavior. In I. B. Weiner (Series Ed.) & T. Millon & M.J. Lerner (Volume Ed.), *Handbook of psychology: Vol. 5. Personality and social psychology* (pp. 299-325). New York: Wiley.
- Oppenheim, A. N. (1992). *Questionnaire design, interviewing, and attitude measurement*. New York: Pinter.
- Ouellette, J. A., & Wood, W. (1998). Habit and intention in everyday life: The multiple processes by which past behavior predicts future behavior. *Psychological Bulletin*, *124*, 54-74.
- Owings, W. A., Kaplan, L. S., Nunnery, J., Marzano, R., Myran, S., & Blackburn, D. (2006). Teacher quality and troops to teachers: A national study with implications for principals. *NASSP Bulletin*, *90*(2), 102-131.

- Petty, R. E., Wegener, D. T., & Fabrigar, L. R. (1997). Attitudes and attitude change. *Annual Review of Psychology, 48*, 609-647.
- Petty, R.E., Wheeler, S. C., & Tormala, Z. L. (2003). Persuasion and attitude change. In I.B. Weiner (Series Ed.) & T. Millon & M.J. Lerner (Volume Ed.), *Handbook of psychology: Vol. 5. Personality and social psychology* (pp. 299-325). New York: Wiley.
- Roberts, J. S., Laughlin, J. E., & Wedell, D. H. (1999). Validity issues in the Likert and Thurstone approaches to attitude measurement. *Educational and Psychological Measurement, 59*(2), 211-233.
- Roza, M., Celio, M.B., Harvey, J., & Wishon, S. (2003). *A matter of definition: Is there truly a shortage of school principals?* Retrieved November 15, 2004, from http://www.crpe.org/pubs/pdf/mroza_principalshortagewb2.pdf.
- Shaw, M.E., & Wright, J.M. (1967). *Scales for the measurement of attitudes*. New York: McGraw-Hill.
- Southern Regional Education Board. (2003) *Good principals are the key to successful schools: Six strategies to prepare more good principals*. Atlanta, GA: Author.
- Southern Regional Education Board. (2006). *Schools can't wait: Accelerating the redesign of university principal preparation programs*. Atlanta, GA: Author.
- Thomas B. Fordham Institute. (1999). *The teachers we need and how to get more of them*. Retrieved March 18, 2005, from <http://www.edexcellence.net/institute/publication/publication.cfm?id=16>.

Thomas B. Fordham Institute. (2003). *Better leaders for America's schools: A manifesto*.

Retrieved on March 18, 2005, from

<http://www.edexcellence.net/institute/publication/publication.cfm?id=1>.

University of Virginia Partnership for Leaders in Education. (2005). *Virginia school*

turnaround specialist program. Retrieved March 19, 2005, from

<http://www.darden.virginia.edu/VDOE/>.

Virginia Department of Education (n.d.). Retrieved February 15, 2005, from

<http://www.doe.virginia.gov/VDOE/newvdoe/SchoolLeadershipDevPrepFundedGrants.pdf>.

Wicker, A.W. (1969). Attitude versus actions: The relationship of verbal and overt behavioral responses to attitude objects. *Journal of Social Issues*, 25(4), 41 – 78.

Wood, W. (2000). Attitude change: Persuasion and social influence. *Annual Review of Psychology*, 50, 539-570.

Yu, C. H. (2000). An overview of remedial tools for collinearity in SAS. *Proceedings of 2000 Western Users of SAS Software Conference*, (pp.196-201).

APPENDIX A

Initial Set of Thurstone Equal Appearing Interval Items for Measuring Superintendents' Willingness to Recommend Hiring Alternatively Licensed Principals with Scaling Data, $N = 29$

	Scale¹	Q^2	SD
1. All principals should be licensed alternatively.	11	3.25	4.12
2. I would be extremely reluctant to hire an alternatively licensed principal.	2	.75	1.38
3. I probably would not hire an alternatively licensed principal.	3	.75	1.20
4. I would certainly hire an alternatively licensed principal, but I have not yet.	9	1.00	1.68
5. I would never hire an alternatively licensed principal.	1	.00	.26
6. I would hire an alternatively licensed principal rather than a traditional principal.	10	3.38	3.68
7. I am more willing to recommend hiring an alternatively licensed principal than a traditional principal.	10	1.75	3.15
8. Alternatively licensed principal candidates are better prepared than traditional principal candidates for the responsibilities of the principalship.	10	3.00	3.31
9. I would never hire another traditional principal candidate.	10	5.00	4.76
10. I am indifferent about hiring alternatively licensed school principals.	6	.25	1.52

¹ The scale for each item represents the median of each item. The scales could be between one (superintendents' who are least willing to recommend hiring alternatively licensed principals) and 11 (those who are most willing to recommend hiring alternatively licensed principals) based on Thurstone's method of equal-appearing intervals (Aiken, 1996; Oppenheim, 1992).

² The semi-interquartile range (Q) is the variation in each item across the 11 point scale. Items with low semi-interquartile ranges had less variance than items with high ranges. The semi-interquartile range was computed by halving the difference between the 75th percentile rank and 25th percentile rank for each item.

11. I am receptive to hiring alternatively licensed principals.	9	1.25	1.57
12. I am adamantly opposed to ever hiring alternatively licensed principals.	1	.00	1.02
13. I always hire the most qualified candidate.	8	2.50	2.31
14. I am apprehensive about hiring an alternatively licensed principal.	4	1.50	2.08
15. I always hire the candidate who has the greatest potential to be successful.	9	2.25	2.32
16. In my district, we actively recruit alternatively licensed principals.	10	2.25	3.27
17. I certainly would consider an alternatively licensed principal, but I have not yet.	8	1.25	1.80
18. In my district, we actively train alternatively licensed principals.	9	2.75	3.28
19. I think alternatively licensed principals have the capacity to succeed in K-12 public education.	9	1.50	2.04
20. I would only hire a traditional candidate if I were forced to hire one.	9	4.75	4.35
21. I would hire an alternatively licensed principal if it were absolutely necessary.	4	1.75	2.43
22. I would not hire an alternatively licensed principal, but superintendents in some districts should.	4	1.50	2.02
23. I am extremely apprehensive about hiring an alternatively licensed principal.	3	1.00	1.94
24. I would be hesitant about hiring an alternatively licensed principal.	3	1.25	2.35
25. I don't care if principal candidates are traditionally licensed or alternatively licensed.	6	1.50	2.79
26. I am willing to consider hiring an alternatively licensed principal.	8	1.50	1.57
27. In some cases, I might prefer an alternatively licensed principal.	8	1.00	1.50

28. I believe traditional licensure for principals inhibits quality people, whom I'd hire, from entering the principalship.	9	2.25	3.14
29. I would be extremely willing to hire an alternatively licensed principal.	10	1.25	2.72
30. I think alternatively licensed principals have a greater capacity than traditionally licensed principals to succeed in public education.	10	3.00	3.58
31. The type of license a principal candidate possesses does not influence my willingness to hire.	7.5	1.50	2.74
32. I seriously consider all principal candidates regardless of how they obtained their administrative license.	9	1.75	2.63
33. During the hiring process, I always consider hiring alternatively licensed principals first.	10	2.50	3.55
34. I would be uneasy about hiring an alternatively licensed principal.	4	1.50	2.16
35. I am passionately in favor of hiring alternatively licensed principals.	11	2.00	3.04
36. There are no circumstances under which I would be willing to hire an alternatively licensed principal.	1	.00	.92
37. There are no circumstances when I would hire an alternatively licensed principal.	1	.00	1.15
38. I always hire the most qualified candidate, but I just don't think that person can be alternatively licensed.	4	1.25	2.77
39. I have not had the opportunity to think about hiring an alternatively licensed principal.	6	.50	1.85

40. I am uncomfortable placing an alternatively licensed principal candidate in a school's lead position.	3	1.00	2.25
41. I would only hire an alternatively licensed principal candidate if I were forced to hire one.	2	1.50	2.09
42. I am in favor of alternatively licensed principals.	9	1.25	1.54
43. I don't really know whether I would hire an alternatively licensed principal.	6	.50	1.49
44. Decertifying the principalship would make the principalship more competitive.	8	1.75	2.77
45. I only consider traditional principal candidates.	1	.50	2.86
46. I would always hire alternatively licensed principals.	11	2.75	3.76
47. Only traditionally licensed principals can succeed in K-12 public education.	1	.00	2.61
48. I would hire an alternatively licensed principal under certain circumstances.	8	1.50	1.70
49. I do not believe in alternative licensure for school principals, but it is not practically advisable to abolish it.	3	1.00	1.96
50. I'm not concerned about alternative licensure for principals one way or the other.	6	.25	2.03
51. Alternative licensure for principals is not a good idea.	2	1.00	1.73
52. I would only consider hiring alternatively licensed principals.	11	4.00	4.16
53. I give preferential treatment to alternatively licensed principals during the screening process.	10	3.75	4.16
54. I don't agree with alternatively licensing all principals, but I would be willing to hire a specific individual.	5	1.50	2.25

55. I am more willing to consider hiring alternatively licensed principals than I used to be.	7	.50	1.50
56. I used to be opposed to hiring alternatively licensed principals, but I've changed my position.	7	1.50	2.31
57. I will always hire traditional principal candidates.	1	1.50	3.00
58. I consider all principal applicants if they obtained licensure.	8	2.50	2.71
59. I would be frightened about hiring an alternatively licensed principal.	2	.50	1.35
60. I prefer traditional candidates, but if necessary, I would consider hiring an alternatively licensed principal.	7	2.00	2.15
61. I don't think all principals should be alternatively licensed, but I would consider hiring certain alternatively licensed principals.	7	1.00	1.93
62. I prefer hiring alternatively licensed principals.	10	2.25	3.23
63. I believe some alternatively licensed principals would be successful principals.	9	.75	1.09
64. My first choice would be someone traditionally licensed, but I would consider an alternative candidate if I thought they were a viable option.	7	2.00	2.28
65. I would approach hiring alternatively licensed principals cautiously.	5	1.50	2.22
66. I would hire an alternatively licensed principal over a traditionally licensed principal.	10	2.75	3.66
67. I used to be adamantly opposed, but now I am more willing to hire alternatively licensed principals.	7	1.00	1.84

68. The best principal candidates have gone an alternative route.	10	3.00	3.77
69. I would prefer a traditional candidate, but in some situations an alternatively licensed principal might be more successful.	7	1.75	2.12
70. I cannot think of an instance when I would hire an alternatively licensed principal.	2	.50	1.70
71. I prefer hiring traditional principal candidates.	3	1.75	2.75
72. I only hire traditional candidates, but some districts would benefit from alternative licensure for school principals.	4	2.00	2.31
73. I am adamantly opposed to alternative licensure for school principals, but if I had to, I would hire an alternatively licensed principal.	2	1.00	1.97
74. To consider an alternatively licensed principal as a viable candidate, they would have to be extraordinary.	5	2.75	3.21
75. I am ambivalent toward the concept of alternative licensure for school principals.	6	1.75	2.20
76. I would be nervous about hiring an alternatively licensed principal.	3	1.50	1.76
77. I have not considered hiring an alternatively licensed principal.	4.5	1.38	2.23
78. I would hire an alternatively licensed principal if I thought they could be effective.	9	1.25	1.66
79. I have never thought about hiring an alternatively licensed principal.	5	1.50	1.80
80. I only consider traditionally licensed candidates, but the doors to the principalship should be open.	5	1.25	2.11
81. I would be concerned about hiring an alternatively licensed principal.	4	1.25	2.08
82. I would be hesitant about hiring an alternatively licensed principal.	3	.75	1.77

83. Hiring alternatively licensed school principals is a great idea, but not in my school district.	5	2.00	2.30
84. I would hire an alternatively licensed principal if recommended by a reliable source.	8	1.00	2.14
85. I would consider hiring some alternatively licensed principals.	8	1.00	1.82
86. I always hire the most qualified candidate regardless of license held.	8	2.25	2.12
87. I might consider an alternatively licensed principal candidate.	7	1.50	2.09
88. I am more willing to hire alternatively licensed principals than I have been in the past.	7	.75	1.64
89. If given the opportunity, I would consider hiring an alternatively licensed principal.	8	1.00	1.90
90. I would not hire an alternatively licensed principal.	1	.00	1.89
91. Alternatively licensed principals cannot succeed in K-12 public education.	1	.00	.87

APPENDIX B

Items Selected for Kufel's Measure of Superintendents' Willingness to Recommend Hiring Alternatively Licensed Principals

Scale Value = 1	<i>N</i>	<i>Q</i>	<i>SD</i>
(Item 36) There are no circumstances under which I would be willing to hire an alternatively licensed principal.	29	.00	.92
Scale Value = 2	29		
(Item 70) I cannot think of an instance when I would hire an alternatively licensed principal.	29	.50	1.70
Scale Value = 3	29		
(Item 3) I probably would not hire an alternatively licensed principal.	29	.75	1.20
Scale Value = 4	29		
(Item 81) I would be concerned about hiring an alternatively licensed principal.	29	1.25	2.08
Scale Value = 5	29		
(Item 79) I have never thought about hiring an alternatively licensed principal.	29	1.50	1.80
Scale Value = 6	29		
(Item 43) I don't really know whether I would hire an alternatively licensed principal.	29	.50	1.49
Scale Value = 7	29		
(Item 55) I am more willing to consider hiring alternatively licensed principals than I used to be.	29	.50	1.50
Scale Value = 8	29		
(Item 27) In some cases, I might prefer an alternatively licensed principal.	29	1.00	1.50
Scale Value = 9	29		
(Item 4) I would certainly hire an alternatively licensed principal.	29	1.00	1.68
Scale Value = 10	29		
(Item 29) I would be extremely willing to hire an alternatively licensed principal.	29	1.25	2.72
Scale Value = 11	29		
(Item 35) I am passionately in favor of hiring alternatively licensed principals.	29	2.00	3.04

APPENDIX C

Second Instrument for Content Validation of Scaled Variables Associated with the Willingness of Superintendents to Recommend

Hiring Alternatively Licensed Principals

Name:

Email:

Directions: Circle the number of the appropriate response.

Please tear off the directions and domain definitions to use as a guide throughout the completion of the instrument. Each item requires three responses. One for each category – **Domain**, **Association**, and **Clarity**.

Domain:

Read each statement, decide which domain the statement should be classified in, and highlight the number of that domain: 1 = *Community perceptions*, 2 = *Leadership ability*, 3 = *Ability to lead instruction*, 4 = *General attitudes toward alternative licensure*, 5 = *The quality of traditional principal preparation programs*, 6 = *Supply of principal applicant pool*, or 7 = *Educational context*.

Association:

Decide how strongly the statement is associated with the domain you have selected and circle the number: 1 = Very weak, 2 = Weak, 3 = Strong, or 4 = Very strong.

Clarity:

Read each statement and decide how clear it is. Here I'm trying to address any ambiguity or confusion in statements. Code the clarity as: 1 = Very unclear, delete; 2 = Somewhat clear, revise; or 3 = Clear, leave as written. (For any items you rate as 1 or 2 for clarity or association, please write your suggestions for improvement directly on the page the item is on.)

If you have any questions, please contact me at akufel@vt.edu or (540)588-7349.

Once you've responded to each item (and made suggested revisions), please return the instrument to me personally or place it in my faculty mailbox.

Note:

- I won't use all of these statements ... only about one-third of the strongest items. So, please be brutally honest!!
- Please remember to be thorough and take your time. The entire process should take no more than 45 minutes.
- Thank you for your generosity and help.

Domains:

- (1) *Community perceptions.* Superintendents' perceptions of the school community's views on alternatively licensed principals. The school community includes teachers, students, classified staff, partners, parents, other administrators, and community members generally.
- (2) *Leadership ability.* Superintendents' perceptions of the general leadership ability of alternatively licensed principals.
- (3) *Ability to lead instruction.* Superintendents' perceptions of the instructional leadership ability of alternatively licensed principals.
- (4) *General attitude toward alternative licensure.* An evaluation that is favorable, unfavorable, or ambivalent expressed toward alternative licensure in education.
- (5) *The quality of traditional principal preparation programs.* Superintendents' perceptions of the quality of traditional principal preparation programs in universities or colleges in the vicinity of the superintendent's district.
- (6) *Supply of principal applicant pool.* Superintendents' perceptions of the condition of the applicant pool, with respect to the quality and quantity of principal candidates.
- (7) *Educational context.* Superintendents' perceptions of the alternatively licensed principal's ability to understand and work within the educational context.

Association ratings: 1 = Very weak, 2 = Weak, 3 = Strong, 4 = Very strong

Clarity ratings: 1 = Very unclear, delete; 2 = Somewhat clear, revise; and 3 = Clear, leave as written.

(For any items you rate as 1 or 2 for clarity or association, please write your suggestions for improvement directly on this page.)

Questionnaire statement	Domain	Association	Clarity
1. Traditional principal preparation programs are tailored to meet the needs of schools in my community.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
2. An alternatively licensed principal could be an effective instructional leader.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
3. I do not believe in alternative licensure under any circumstances.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
4. An alternatively licensed principal would be able to work well with my community.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
5. An alternatively licensed principal could create a shared vision with members of the faculty.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
6. An alternatively licensed principal could not provide an educational vision for the school.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
7. An alternatively licensed principal would have the ability to communicate with my community.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
8. An alternatively licensed principal could help teachers who are having difficulty with instruction.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
9. My community overall would accept an alternatively licensed principal.	1 2 3 4 5 6 7	1 2 3 4	1 2 3

10.	An alternatively licensed principal could understand the learning process of a child.	1 2 3 4 5 6 7	1 2 3 4
11.	An alternatively licensed principal could help a school meet adequate yearly progress (AYP).	1 2 3 4 5 6 7	1 2 3 4
12.	Alternative licensure in education opens the doors to quality people.	1 2 3 4 5 6 7	1 2 3 4
13.	An alternatively licensed principal would not have knowledge of instructional strategies.	1 2 3 4 5 6 7	1 2 3 4
14.	Internships in traditional principal preparation programs offer few meaningful opportunities.	1 2 3 4 5 6 7	1 2 3 4
15.	Fewer high-quality candidates are applying to fill the role of the principalship.	1 2 3 4 5 6 7	1 2 3 4
16.	An alternatively licensed principal could handle all of the responsibilities of the principalship.	1 2 3 4 5 6 7	1 2 3 4
17.	An alternatively licensed principal could lead change in a school.	1 2 3 4 5 6 7	1 2 3 4
18.	An alternatively licensed principal would understand the politics of public education.	1 2 3 4 5 6 7	1 2 3 4
19.	The goals of traditional principal preparation programs reflect the needs of today's children.	1 2 3 4 5 6 7	1 2 3 4

20.	The quality of principal candidates in the applicant pool has diminished.	1 2 3 4 5 6 7	1 2 3 4
21.	An alternatively licensed principal is likely to have the ability to manage people.	1 2 3 4 5 6 7	1 2 3 4
22.	Traditional principal preparation programs teach relevant topics such as how to address the challenges of No Child Left Behind.	1 2 3 4 5 6 7	1 2 3 4
23.	Faculties in traditional principal preparation programs are weak.	1 2 3 4 5 6 7	1 2 3 4
24.	An alternatively licensed principal could provide staff development opportunities that would enrich the lives of students.	1 2 3 4 5 6 7	1 2 3 4
25.	Educational courses in traditional principal preparation programs are irrelevant.	1 2 3 4 5 6 7	1 2 3 4
26.	An alternatively licensed principal would not understand the centrality of education within a community.	1 2 3 4 5 6 7	1 2 3 4
27.	The quantity of principal candidates in the applicant pool has diminished.	1 2 3 4 5 6 7	1 2 3 4
28.	An alternatively licensed principal could recognize good instruction.	1 2 3 4 5 6 7	1 2 3 4

29.	Alternative licensure is warranted under certain circumstances.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
30.	An alternatively licensed principal could not effectively steward the school's academic mission.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
31.	An alternatively licensed principal could not handle the accountability in my district.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
32.	Traditional principal preparation programs offer meaningful courses.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
33.	An alternatively licensed principal would not understand the relationship between teachers and administration.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
34.	Although they are qualified for the position, there are few candidates who I would seriously consider hiring.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
35.	An alternatively licensed principal would be able to handle the pressure from my district's central office.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
36.	In traditional principal preparation programs the curriculum is organized to teach the knowledge needed by leaders of specific types of schools.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
37.	An alternatively licensed principal could identify with their staff about issues pertaining to educational matters.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
38.	An alternatively licensed principal would not be able to work with power groups associated with education.	1 2 3 4 5 6 7	1 2 3 4	1 2 3

39.	Principals can succeed in our district without training in a traditional principal preparation program.	1 2 3 4 5 6 7	1 2 3 4
40.	Fewer high-quality candidates are willing to become principals.	1 2 3 4 5 6 7	1 2 3 4
41.	An alternatively licensed principal could provide a positive learning environment for students.	1 2 3 4 5 6 7	1 2 3 4
42.	There are few candidates in the principal applicant pool who I would seriously consider for a principal vacancy.	1 2 3 4 5 6 7	1 2 3 4
43.	I do not believe in alternative licensure, but it is not practically advisable to abolish it.	1 2 3 4 5 6 7	1 2 3 4
44.	In traditional principal preparation programs the curriculum is organized to teach the knowledge needed by leaders of specific types of schools.	1 2 3 4 5 6 7	1 2 3 4
45.	An alternatively licensed principal could provide an appropriate vision for the school.	1 2 3 4 5 6 7	1 2 3 4
46.	An alternatively licensed principal is likely to have a background in budgeting.	1 2 3 4 5 6 7	1 2 3 4
47.	An alternatively licensed principal would not understand curriculum development.	1 2 3 4 5 6 7	1 2 3 4
48.	An alternatively licensed principal can understand different	1 2 3 4 5 6 7	1 2 3 4

	pedagogies.			
49.	An alternatively licensed principal would not be able to work effectively with a fixed faculty.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
50.	My district is experiencing a shortage of candidates in the principal applicant pool.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
51.	An alternatively licensed principal would not be able to deal with the day to day pressures experienced by principals in my school district.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
52.	I am in favor of alternative licensure in education.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
53.	Traditional principal preparation programs offer courses that are too abstract.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
54.	An alternatively licensed principal could use data to guide decision-making processes.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
55.	An alternatively licensed principal could provide a clear educational vision.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
56.	In traditional principal preparation programs the curriculum is organized to teach the skills needed by leaders of specific types of schools.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
57.	An alternatively licensed principal is likely to have managerial experience.	1 2 3 4 5 6 7	1 2 3 4	1 2 3

58.	Parents in my district would accept an alternatively licensed principal.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
59.	Curriculum in traditional principal preparation programs integrates the theory and practice of administration.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
60.	An alternatively licensed principal would not understand the importance of communicating with parents.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
61.	Classified staff in my district would not perceive an alternatively licensed principal as qualified for the job.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
62.	Alternatively licensed principals have effective managerial skills.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
63.	Traditional principal preparation programs offer a curriculum that is rigorous.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
64.	An alternatively licensed principal is likely to have had successful leadership experiences.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
65.	Education is a unique business that requires the acquisition of specialized knowledge.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
66.	Students in my district would perceive an alternatively licensed principal as qualified for the job.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
67.	An alternatively licensed principal would not be able to deal with the pressures from different constituencies.	1 2 3 4 5 6 7	1 2 3 4	1 2 3

68.	The traditional principal preparation programs have a large impact on the success of future principals.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
69.	An alternatively licensed principal may not understand how school decisions affect the community.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
70.	It's about time education creates an avenue for quality people outside of education.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
71.	In my district, the high quality teachers do not want to be principals.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
72.	My community would be concerned if an alternatively licensed principal were the head of a school in our district.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
73.	My district is currently experiencing some degree of surplus in qualified applicants for the principal position.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
74.	Resources in traditional principal preparation programs are adequate to support the program.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
75.	Traditional principal preparation programs train high quality leaders.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
76.	My district consistently attracts numerous principal candidates to fill vacancies.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
77.	In my region, traditional principal preparation programs collaborate with K-12 partners.	1 2 3 4 5 6 7	1 2 3 4	1 2 3

78.	Licensure in education is just an unnecessary hoop educators must jump through.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
79.	Education courses in traditional principal preparation programs are outdated.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
80.	An alternatively licensed principal would not understand the bureaucracy of public school systems.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
81.	The number of quality principal candidates applying to fill vacancies has increased in recent years.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
82.	Teachers in my district would not accept an alternatively licensed principal.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
83.	I am opposed to alternative licensure in education.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
84.	An alternatively licensed principal could help teachers use research-based instructional strategies.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
85.	Alternative licensure has no place in education.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
86.	I believe teacher evaluation could be handled by an alternatively licensed principal.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
87.	My community would perceive an alternatively licensed principal as qualified for job.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
88.	I believe teacher selection could be handled by an alternatively licensed principal.	1 2 3 4 5 6 7	1 2 3 4	1 2 3

89.	An alternatively licensed principal has the ability to communicate well with teachers.	1 2 3 4 5 6 7	1 2 3 4 1 2 3
90.	An alternatively licensed principal could not implement a vision for the school.	1 2 3 4 5 6 7	1 2 3 4 1 2 3
91.	An alternatively licensed principal can have a deep understanding of how children learn.	1 2 3 4 5 6 7	1 2 3 4 1 2 3
92.	I am opposed to alternative licensure in my district, but it might work in some school districts.	1 2 3 4 5 6 7	1 2 3 4 1 2 3
93.	In my district, many teachers are qualified to be principals, but are unwilling to apply for the position.	1 2 3 4 5 6 7	1 2 3 4 1 2 3
94.	An alternatively licensed principal can effectively use current research-based knowledge to improve student achievement.	1 2 3 4 5 6 7	1 2 3 4 1 2 3
95.	An alternatively licensed principal could effectively manage school improvement data.	1 2 3 4 5 6 7	1 2 3 4 1 2 3
96.	The quality of principal candidates is not what it used to be.	1 2 3 4 5 6 7	1 2 3 4 1 2 3
97.	Alternatively licensed principals cannot be instructional leaders.	1 2 3 4 5 6 7	1 2 3 4 1 2 3
98.	Alternatively licensed principals have effective leadership skills.	1 2 3 4 5 6 7	1 2 3 4 1 2 3

99.	Traditional principal preparation programs teach relevant topics such as how to effectively use data to increase student achievement.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
100.	An alternatively licensed principal would not be able to manage teachers in my district.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
101.	My district is currently experiencing some degree of shortage in qualified applicants for the principal position.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
102.	An alternatively licensed principal could organize teaching teams.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
103.	Other administrators in the district would accept an alternatively licensed principal.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
104.	Alternative licensure is an idea that should be fully utilized in education.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
105.	Traditional principal preparation programs are of high quality.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
106.	An alternatively licensed principal could meet the needs of special education students.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
107.	Alternative licensure in education sets a bad precedent.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
108.	Certification for educators should be lifted.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
109.	Parents in my district would perceive an alternatively licensed principal as qualified for the job.	1 2 3 4 5 6 7	1 2 3 4	1 2 3

110. Faculty in my district would not perceive an alternatively licensed principal as qualified for the job.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
111. An alternatively licensed principal could not supervise teachers.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
112. An alternatively licensed principal could not use data effectively to improve classroom instruction.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
113. Alternative licensure is a concept that is long overdue.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
114. An alternatively licensed principal would not be able to handle the pressure from my community.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
115. Traditional principal preparation programs do not meet our school district's needs.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
116. An alternatively licensed principal would not understand how school decisions affect parents.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
117. An alternatively licensed principal could communicate effectively with my school community.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
118. Traditional principal preparation programs are just a hurdle future administrators must jump over.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
119. The students in my district would accept an alternatively licensed principal.	1 2 3 4 5 6 7	1 2 3 4	1 2 3

120. An alternatively licensed principal would handle school discipline effectively.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
121. An alternatively licensed principal could not use data effectively to improve student achievement.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
122. Quality educators could be alternatively licensed.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
123. School partners in my district would not accept an alternatively licensed principal.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
124. Traditional principal preparation programs are of low quality.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
125. Coursework in traditional principal preparation programs have little to do with the job of being a principal.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
126. An alternatively licensed principal would not understand how to develop effective instruction.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
127. Traditional principal preparation programs do not produce instructional leaders.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
128. There has been no change in the principal applicant pool.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
129. An alternatively licensed principal could help teachers use pacing guides for instruction.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
130. An alternatively licensed principal would be able to resolve conflicts in an educational setting.	1 2 3 4 5 6 7	1 2 3 4	1 2 3

131. Power groups in my community would accept an alternatively licensed principal.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
132. An alternatively licensed principal could lead a school in the improvement process.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
133. An alternatively licensed principal would be viewed as a credible leader in the eyes of the teachers in my district.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
134. In my district, principals nearing the retirement age will be a problem.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
135. It's getting more difficult to find high quality principal candidates.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
136. An alternatively licensed principal is capable of setting high achievement expectations for students.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
137. I do not believe in alternative licensure, but I'm not sure it isn't necessary.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
138. An alternatively licensed principal would not be able to manage school operations (transportation, cafeteria, maintenance, etc.) effectively.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
139. An alternatively licensed principal could provide staff development opportunities that would enrich the lives of the faculty.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
140. Students trained in traditional principal preparation programs are equipped to meet the demands of the principalship.	1 2 3 4 5 6 7	1 2 3 4	1 2 3

141. An alternatively licensed principal would manage school facilities effectively.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
142. An alternatively licensed principal may have knowledge of the surrounding community.	1 2 3 4 5 6 7	1 2 3 4	1 2 3
143. An alternatively licensed principal would not be able to communicate effectively with parents in my community.	1 2 3 4 5 6 7	1 2 3 4	1 2 3

APPENDIX D

Third Instrument for Content Validation of Scaled Variables Associated with the Willingness of Superintendents to Recommend Hiring Alternatively Licensed Principals

Please type the information in the field.

Name:

Email:

Directions: Type the number of the appropriate response in the gray field.

Please print the directions and domain definitions to use as a guide throughout the completion of the instrument. Each item requires three responses. One for each category – **Domain**, **Association**, and **Clarity**.

Domain:

Read each statement, decide which domain the statement should be classified in, and type the number of that domain in the gray field provided: 1 = *Community perceptions*, 2 = *Leadership ability*, 3 = *Ability to lead instruction*, 4 = *General attitudes toward alternative licensure*, 5 = *The quality of traditional principal preparation programs*, 6 = *Supply of principal applicant pool*, or 7 = *Educational context*.

Association:

Decide how strongly the statement is associated with the domain you have selected and type in the number: 1 = Very weak, 2 = Weak, 3 = Strong, or 4 = Very strong.

Clarity:

Read each statement and decide how clear it is. Here I'm trying to address any ambiguity or confusion in statements. Code the clarity as: 1 = Very unclear, delete; 2 = Somewhat clear, revise; or 3 = Clear, leave as written.

(For any items you rate as 1 or 2 for clarity or association, please type your suggestions for improvement directly on the page the item is on.)

If you have any questions, please contact me at akufel@vt.edu, akufel@rcs.k12.va.us, or (540)588-7349.

Once you've responded to each item (and made suggested revisions), please return it to me via email (akufel@vt.edu).

Note:

- Your task is to rate each item based on domain placement, strength of association, and clarity. **Your attitude toward each statement is irrelevant.**

- Please remember to be thorough and take your time. The entire process should take no more than 45 minutes.
- Thank you for your generosity and help.

Domains:

- (1) *Community perceptions.* The school community's views on alternatively licensed principals. The school community includes teachers, students, classified staff, partners, parents, other administrators, and community members generally.
- (2) *Leadership ability.* The general leadership ability of alternatively licensed principals.
- (3) *Ability to lead instruction.* The instructional leadership ability of alternatively licensed principals.
- (4) *General attitude toward alternative licensure.* An evaluation that is favorable, unfavorable, or ambivalent expressed toward alternative licensure in education.
- (5) *The quality of traditional principal preparation programs.* The quality of traditional principal preparation programs in universities or colleges.
- (6) *Supply of principal applicant pool.* The condition of the applicant pool, with respect to the quality and quantity of principal candidates.
- (7) *Educational context.* Conditions in the work of the principal that may affect the alternatively licensed principal's ability to do the job.

Association Ratings: 1 = Very weak, 2 = Weak, 3 = Strong, 4 = Very strong

Clarity Ratings: 1 = Very unclear, delete; 2 = Somewhat clear, revise; and 3 = Clear, leave as written.

(For any items you rate as 1 or 2 for clarity or association, please write your suggestions for improvement at the bottom of the instrument. Indicate the item and the recommended changes.)

Questionnaire statement	Domain	Association	Clarity
	1 2 3 4 5 6 7	1 2 3 4	1 2 3
1. There has been no change in the principal applicant pool.			
2. My community would perceive an alternatively licensed principal as qualified for the job.			
3. An alternatively licensed principal would not understand the bureaucracy of public school systems.			
4. An alternatively licensed principal could recognize good instruction.			
5. An alternatively licensed principal would not understand the relationship between teachers and administration.			
6. The students in my district would accept an alternatively licensed principal.			
7. An alternatively licensed principal could be an effective instructional leader.			
8. School partners in my district would not accept an alternatively licensed principal.			
9. An alternatively licensed principal could lead change in a school.			
10. An alternatively licensed principal is likely to have the ability to manage people.			

Questionnaire statement	Domain 1 2 3 4 5 6 7	Association 1 2 3 4	Clarity 1 2 3
11. An alternatively licensed principal is likely to have the ability to manage people.			
12. An alternatively licensed principal could handle all of the responsibilities of the principalship.			
13. The traditional principal preparation programs have a large impact on the success of future principals.			
14. I am opposed to alternative licensure in education.			
15. An alternatively licensed principal could lead a school in the improvement process.			
16. An alternatively licensed principal would understand the politics of public education.			
17. An alternatively licensed principal would manage school facilities effectively.			
18. Parents in my district would accept an alternatively licensed principal.			
19. An alternatively licensed principal is likely to have had successful leadership experiences.			
20. An alternatively licensed principal could help teachers who are having difficulty with instruction.			

Questionnaire statement	Domain							Association				Clarity		
	1	2	3	4	5	6	7	1	2	3	4	1	2	3
21. I am in favor of alternative licensure in education.														
22. An alternatively licensed principal could help teachers use research-based instructional strategies.														
23. Alternatively licensed principals have effective leadership skills.														
24. Alternatively licensed principals cannot be instructional leaders.														
25. Traditional principal preparation programs train high quality leaders.														
26. An alternatively licensed principal would not understand how to develop effective instruction.														
27. An alternatively licensed principal could create a shared vision with members of the faculty.														
28. An alternatively licensed principal could help teachers use pacing guides for instruction.														
29. I do not believe in alternative licensure under any circumstances.														
30. An alternatively licensed principal would be viewed as a credible leader in the eyes of the teachers in my district.														

Questionnaire statement	Domain	Association	Clarity
	1 2 3 4 5 6 7	1 2 3 4	1 2 3
31. Alternative licensure has no place in education.			
32. Coursework in traditional principal preparation programs has little to do with the job of being a principal.			
33. I am opposed to alternative licensure in my district, but it might work in some school districts.			
34. An alternatively licensed principal would not be able to work effectively with an inherited faculty.			
35. An alternatively licensed principal has the ability to communicate well with teachers.			
36. Alternative licensure is an idea that should be fully utilized in education.			
37. In traditional principal preparation programs the curriculum is organized to teach the skills needed by leaders of specific types of schools.			
38. The quantity of principal candidates in the applicant pool has diminished.			
39. An alternatively licensed principal would not understand how school decisions affect parents.			
40. An alternatively licensed principal may not understand how school decisions affect the community.			

Questionnaire statement	Domain	Association	Clarity
	1 2 3 4 5 6 7	1 2 3 4	1 2 3
41. Traditional principal preparation programs are of high quality.			
42. Students trained in traditional principal preparation programs are equipped to meet the demands of the principalship.			
43. Fewer high-quality candidates are applying to fill the role of the principalship.			
44. Traditional principal preparation programs teach relevant topics such as how to effectively use data to increase student achievement.			
45. The quality of principal candidates in the applicant pool has diminished.			
46. Alternative licensure is a concept that is long overdue.			
47. There are few candidates in the principal applicant pool who I would seriously consider for a principal vacancy.			
48. An alternatively licensed principal could not handle the accountability in my district.			
49. The number of quality principal candidates applying to fill vacancies has increased in recent years.			
50. An alternatively licensed principal would not understand the centrality of education within a community.			

Questionnaire statement	Domain	Association	Clarity
	1 2 3 4 5 6 7	1 2 3 4	1 2 3
51. Traditional principal preparation programs do not meet our school district's needs.			
52. My district is experiencing a shortage of candidates in the principal applicant pool.			
53. An alternatively licensed principal would not understand the importance of communicating with parents.			
54. My district is currently experiencing some degree of surplus in qualified applicants for the principal position.			
55. An alternatively licensed principal would not be able to deal with the day-to-day pressures experienced by principals in my school district.			

Recommended changes in items. Type the number of the item and the change recommended.

Item

APPENDIX E

DOCUMENTS USED IN THE DEVELOPMENT OF THE LIKERT SCALES FOR
MEASURING THE PREDICTOR VARIABLES

Table E1

Rotated Factor Matrix for the Principal Components Analysis of the Predictor Variables

Item	Component										
	1	2	3	4	5	6	7	8	9	10	11
15. Alternatively licensed principals could help teachers who are having difficulty with instruction.	.79	.09	.08	.12	-.01	.14	-.04	.10	-.03	.05	.14
16. Alternatively licensed principals could lead positive change in a school.	.75	.12	-.13	.09	.26	.13	.09	-.01	-.04	.13	.09
17R. I do not believe in alternative licensure under any circumstances.	.47	.19	-.17	.53	.06	.14	-.04	-.14	-.18	.04	.08
18. In my district, fewer high-quality candidates are applying to fill the role of the principalship.	.14	.74	-.09	-.02	.14	.18	-.07	.14	.01	-.01	.20
19R. Alternatively licensed principals would not understand the bureaucracy of public school systems.	.34	.01	.03	.10	.13	.26	-.10	-.08	.64	.01	-.13
20. Alternatively licensed principals could effectively evaluate the quality of instruction.	.73	.07	.04	.09	.02	.20	.04	.10	.08	.01	.13

(table continues)

Table E1 (*continued*)

Item	Component										
	1	2	3	4	5	6	7	8	9	10	11
21. Traditional principal preparation programs provide the training necessary for future principals to be successful.	-.08	.01	.74	-.08	-.18	-.01	.08	-.05	-.06	.07	.15
22. My community would perceive an alternatively licensed principal as qualified for the job.	.50	.16	-.01	.12	.15	.66	-.02	.02	.03	.02	.01
23. A school in my district could have some special circumstances that could require a principal who has been prepared in a way other than the traditional principal preparation route.	.48	.12	-.10	.22	.27	.11	-.01	-.07	-.14	.38	-.05
24. I am in favor of alternative licensure in education.	.42	.11	-.13	.66	.14	.17	-.06	-.07	.07	.07	.00
25. When hiring a principal I never factor in how well the candidate will fit the community.	.06	.10	-.02	.12	-.19	-.05	-.42	-.20	.38	-.04	.29
26. No single principal preparation method is sufficient to meet the leadership needs of schools in my district.	.06	.11	-.27	.31	.14	.05	.05	.18	-.31	-.17	-.04
27R. My community would be concerned if an alternatively licensed principal were the head of a school in our district.	.46	.10	-.13	.19	.07	.69	-.09	.03	.10	.04	-.00

(*table continues*)

Table E1 (*continued*)

Item	Component										
	1	2	3	4	5	6	7	8	9	10	11
28. Alternatively licensed principals would manage school facilities effectively.	.35	.09	-.07	.27	.57	.21	.05	-.09	.15	-.07	.16
29. Alternatively licensed principals would be viewed as credible leaders in the eyes of the teachers in my district.	.61	.13	.07	.23	-.09	.37	-.09	.18	.21	.03	.08
30. The quality of principal candidates in my district's applicant pool has diminished.	.16	.82	-.13	.07	.08	.14	-.01	.10	.03	.03	.20
31. I believe alternative licensure is a good idea for some school districts.	.59	.19	-.11	.46	.07	.04	-.01	-.08	-.07	-.03	-.03
32. Alternatively licensed principals could help teachers use research-based instructional strategies.	.84	.08	-.02	.20	.00	-.11	.01	.03	-.02	.06	.09
33R. Coursework in traditional principal preparation programs has little to do with the job of being a principal.	.02	-.11	.72	-.12	.01	-.11	.05	.01	.07	-.07	-.07
34. There are few candidates in the principal applicant pool whom I would seriously consider for a principal vacancy.	.13	.55	-.19	.20	.10	.16	-.15	-.06	-.05	-.08	.34

(*table continues*)

Table E1 (*continued*)

Item	Component										
	1	2	3	4	5	6	7	8	9	10	11
35R. Alternatively licensed principals could not meet the accountability standards in my district.	.55	.07	-.14	.09	.23	.44	.04	-.06	.26	.07	.03
36. Alternatively licensed principals have effective leadership skills.	.36	.05	-.10	.34	.64	.10	.07	-.02	.01	.08	.00
37. A school district needs principals who have diverse experiential backgrounds.	.15	.12	-.03	.05	.06	.04	.04	.84	.04	.04	-.01
38R. School partners in my district would not accept an alternatively licensed principal.	.49	.19	-.06	.17	.11	.56	-.08	-.07	.07	.16	-.19
39R. The quantity of principal candidates in the applicant pool has increased.	.06	.70	-.06	.13	-.04	.05	.06	-.07	-.03	.05	-.34
40. Alternatively licensed principals could help teachers use pacing guides for instruction.	.82	.04	-.05	.21	.03	.01	-.06	.02	.02	.01	-.01
41R. Traditional principal preparation programs do not meet our school district's needs.	.09	-.15	.71	-.04	-.03	-.11	.04	.03	.05	-.03	-.14
42. Alternatively licensed principals are likely to have the ability to lead people in schools.	.58	.13	-.01	.25	.46	.14	.04	.06	.08	.05	.05

(*table continues*)

Table E1 (continued)

Item	Component										
	1	2	3	4	5	6	7	8	9	10	11
43. A principal must be a good match for the community.	-.05	.07	.13	-.08	.13	-.19	.65	.14	.04	-.24	-.02
44R. The number of quality principal candidates applying to fill vacancies has increased in recent years.	.03	.82	-.09	.13	-.05	.02	.05	-.11	-.02	.03	-.22
45. Traditional principal preparation programs train high quality leaders.	-.15	-.14	.83	-.05	.03	.00	.00	-.03	-.03	-.05	-.12
46R. My district consistently attracts numerous principal candidates to fill vacancies.	.24	.67	-.22	-.07	.06	.00	-.09	.02	-.04	-.01	.29
47. The leadership role in a particular school may call for someone who has not been prepared in the traditional way.	.42	.12	-.25	.24	.12	.17	-.03	.13	-.23	.34	-.12
48R. Alternatively licensed principals would not understand how to develop effective instruction.	.80	.15	.03	.05	-.01	.19	-.05	.10	.15	.05	-.06
49R. Alternative licensure has no place in education.	.44	.13	-.05	.62	.20	.11	-.00	.03	.04	.02	-.13
50R. My district is currently experiencing some degree of surplus in qualified applicants for the principal position.	.18	.71	-.05	.15	.08	-.04	.01	.02	-.05	.09	-.14

(table continues)

Table E1 (*continued*)

Item	Component										
	1	2	3	4	5	6	7	8	9	10	11
51. I only consider hiring principals who fit our community.	-.08	-.023	.04	.01	-.11	-.11	.85	-.01	-.00	.07	-.06
52. Alternatively licensed principals could provide an appropriate educational vision for the school.	.73	.12	-.09	.18	.33	.11	-.04	-.04	.02	.11	-.05
53. The students in my district would accept an alternatively licensed principal.	.55	.10	-.08	.11	.40	.24	.01	-.22	.05	.09	-.04
54. The success of a principal candidate is predicated on how well the candidate fits in with the community.	.00	-.06	.11	.09	-.04	.13	.76	-.06	-.10	.15	.09
55. At some point a school in my district may need a principal who has a special kind of educational background (e. g., mathematics, English as a Second Language).	.06	.12	.05	.04	.08	.02	.09	.15	.07	.77	-.03
56. Alternative licensure is an idea that should be fully utilized in education.	.42	.12	-.10	.58	.19	.08	.04	.05	.27	.20	.09

(table continues)

Table E1 (continued)

Item	Component										
	1	2	3	4	5	6	7	8	9	10	11
57R. Alternatively licensed principals would not be able to deal with the day-to-day pressures experienced by principals in my school district.	.55	.12	-.22	.20	.33	.07	-.00	.14	.19	-.10	-.20
58. Alternatively licensed principals could lead a school in the improvement process.	.71	.10	-.17	.18	.31	.04	-.04	.04	.18	.02	-.14
59. Alternative licensure is a concept that is long overdue.	.33	.16	-.16	.69	.15	.05	.07	.10	.19	.14	.19
60. Students trained in traditional principal preparation programs are equipped to meet the demands of the principalship.	-.12	.01	.82	-.02	-.02	.05	.05	.02	-.05	.03	-.02
61R. Alternatively licensed principals cannot be instructional leaders.	.71	.19	.10	.13	.15	.10	-.13	.08	.10	-.07	-.20
62. The quantity of principal candidates in the applicant pool has diminished.	.09	.84	-.07	.06	.00	.07	.02	.16	.04	.05	.07
63. A school district needs principals who have diverse educational backgrounds.	.08	.10	.07	-.03	.00	-.04	.03	.77	-.10	.15	-.00

(table continues)

Table E1 (*continued*)

Item	Component										
	1	2	3	4	5	6	7	8	9	10	11
64R. Alternatively licensed principals may not understand how school decisions affect the community.	.46	.12	-.04	.21	.24	.09	-.02	.15	.43	-.07	.09
65. Traditional principal preparation programs are of high quality.	-.01	-.12	.84	-.05	-.07	.05	.07	.07	-.00	-.01	.06
66R. I am opposed to alternative licensure in education.	.43	.10	.00	.67	.21	.12	-.04	.03	.06	.03	-.15
67. My district is experiencing a shortage of candidates in the principal applicant pool.	.10	.79	-.01	.02	.06	.04	-.03	.10	.10	.10	.14
68. Some schools in my district would favor a principal who has been alternatively licensed.	.46	.19	-.11	.19	.10	.29	-.14	.10	-.03	.43	.18
69. Parents in my district would accept alternatively licensed principals.	.60	.15	.02	.12	.08	.56	-.10	.02	.08	.07	.13
70R. My district is experiencing a surplus of candidates in the principal applicant pool.	.11	.74	.05	.10	.05	-.03	.01	.03	.09	.03	-.31
71R. Alternatively licensed principals would not understand the centrality of education within a community.	.57	.14	-.23	.12	.24	.19	-.09	.08	.31	-.02	-.16

(table continues)

Table E1 (*continued*)

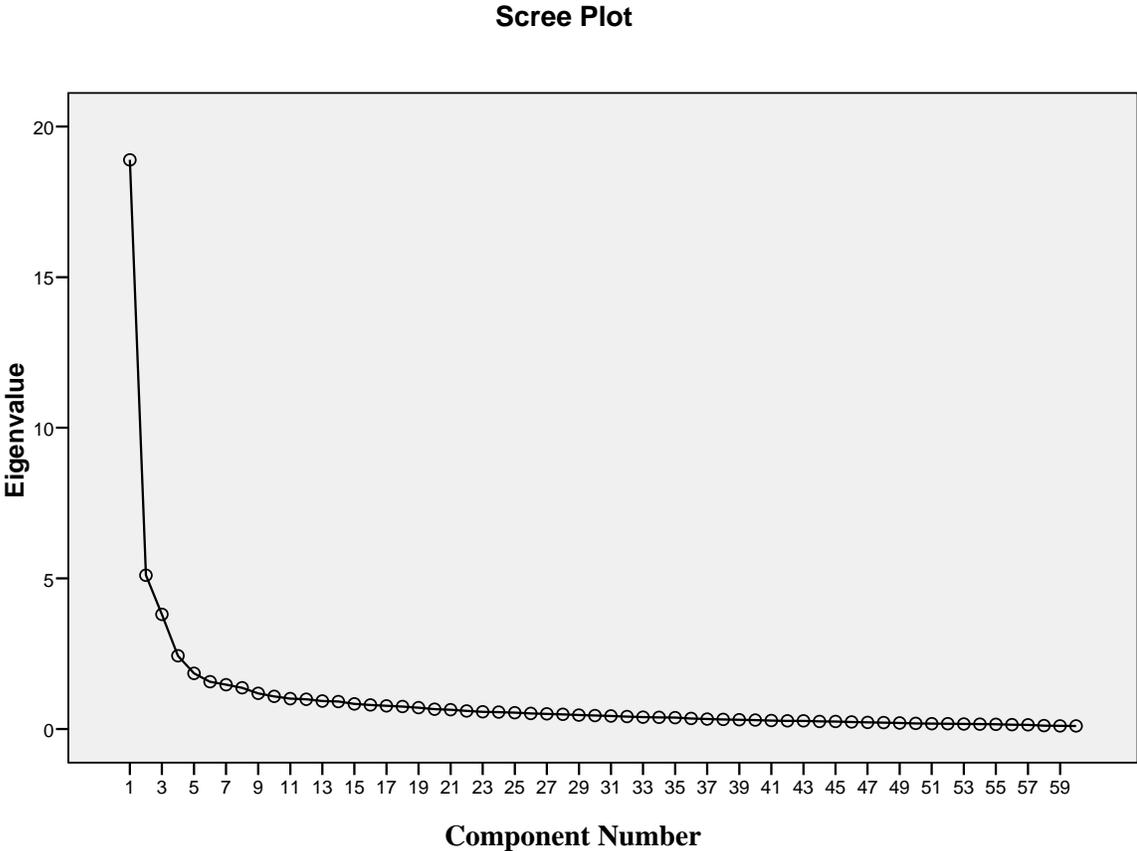
Item	Component										
	1	2	3	4	5	6	7	8	9	10	11
72. The community's ideals may call for a principal who has not been prepared in the traditional way.	.44	.09	-.15	.26	.04	.14	-.00	.16	.14	.33	.02
73. Alternatively licensed principals would understand the politics of public education.	.49	.08	-.07	.23	.28	.05	-.01	.00	.44	.20	.05
74. Alternatively licensed principals are likely to have the ability to manage people.	.25	.11	-.10	.12	.64	-.02	-.09	.17	.03	.17	-.06

Note. Items marked with (R) were *reverse scored*. An orthogonal rotational method, Varimax with Kaiser Normalization, was chosen to interpret the factors. The rotation converged in 8 iterations. Shaded component boxes refer to those items that loaded on that component with a substantial loading ($\geq .40$). The components are 1=superintendents' perceptions of alternatively licensed principals ability to lead instruction, 2=superintendents' perceptions of the supply of the principal applicant pool, 3=superintendents' perceptions of the quality of traditional principal preparation programs, 4=superintendents' general attitudes toward alternative licensure in education, 5=superintendents' perceptions of the management capacity of alternatively licensed principals, 6=superintendents' perceptions of the community acceptance of alternatively licensed principals, 7=superintendents' perceptions of the importance placed on whether a principal candidate fits the community, 8=superintendents' perceptions of the specific leadership needs of the school district, 9=superintendents' perceptions of alternatively licensed principals' ability to understand and work within the educational environment Factors 10 and 11 were omitted. The items that had substantial loadings ($\geq .40$) in factor 10 items were unrelated conceptually. No items in factor 11 had substantial loadings ($\geq .40$). Items are number 15-74 because these are the Likert scaled items in the final questionnaire.

APPENDIX E (continued)

Figure 18

Scree Plot for the Principal Components Analysis of the Predictor Variables



APPENDIX E (continued)

Table E2

Percent of Variance in the Predictor Variables Accounted for by the Components

Component	Initial Eigenvalues	Extraction sums of squared loadings	Rotation sums of squared loadings
	% of variance	% of variance	% of variance
1	31.49	31.49	19.37
2	8.51	8.51	10.36
3	6.35	6.35	7.22
4	4.06	4.06	6.38
5	3.08	3.08	4.50
6	2.62	2.62	4.47
7	2.45	2.45	3.52
8	2.28	2.28	3.06
9	1.98	1.98	2.87
10	1.81	1.81	2.65
11	1.69	1.69	1.91
12	1.65		
13	1.55		
14	1.52		
15	1.39		
16	1.33		
17	1.29		
18	1.25		
19	1.18		
20	1.10		
21	1.07		
22	1.00		
23	.96		
24	.94		
25	.91		
26	.87		
27	.84		
28	.82		
29	.78		
30	.75		
31	.72		
32	.70		
33	.66		
34	.65		
35	.63		

(table continues)

Table E2 (continued)

Component	Initial Eigenvalues	Extraction sums of squared loadings	Rotation sums of squared loadings
	% of variance	% of variance	% of variance
36	.59		
37	.56		
38	.54		
39	.52		
40	.50		
41	.47		
42	.46		
43	.46		
44	.42		
45	.42		
46	.40		
47	.37		
48	.36		
49	.34		
50	.31		
51	.30		
52	.30		
53	.29		
54	.27		
55	.27		
56	.24		
57	.24		
58	.19		
59	.18		
60	.17		

APPENDIX F

Inter-item Correlation Matrix for Scaled Predictor Variables

Inter-item Correlation Matrix for Instructional Leadership

Item	Item 15	Item 16	Item 20	Item 29	Item 32	Item 35R	Item 40	Item 48R	Item 52	Item 57R	Item 58	Item 61R	Item 71R
Item 15	1.00												
Item 16	.61	1.00											
Item 20	.62	.54	1.00										
Item 29	.59	.47	.56	1.00									
Item 32	.61	.59	.56	.55	1.00								
Item 35R	.47	.62	.50	.50	.48	1.00							
Item 40	.58	.54	.54	.56	.71	.51	1.00						
Item 48R	.62	.56	.65	.61	.61	.57	.62	1.00					
Item 52	.54	.61	.51	.47	.58	.57	.62	.60	1.00				
Item 57R	.36	.49	.34	.38	.41	.44	.43	.45	.49	1.00			
Item 58	.51	.60	.49	.49	.58	.60	.67	.57	.72	.55	1.00		
Item 61R	.55	.52	.53	.49	.56	.51	.54	.63	.63	.50	.61	1.00	
Item 71R	.40	.49	.47	.41	.46	.55	.49	.53	.58	.55	.59	.51	1.00

Note. R = reverse coded item.

Inter-item Correlation Matrix for Supply of Principal Applicant Pool

Item	Item 18	Item 30	Item 34	Item 39R	Item 44R	Item 46R	Item 50R	Item 62	Item 67	Item 70R
Item 18	1.00									
Item 30	.75	1.00								
Item 34	.47	.53	1.00							

(table continues)

Table (*continues*)

Item 39R	.45	.55	.33	1.00						
Item 44R	.50	.64	.42	.73	1.00					
Item 46R	.54	.62	.41	.34	.48	1.00				
Item 50R	.46	.57	.40	.49	.59	.50	1.00			
Item 62	.61	.73	.44	.59	.63	.54	.53	1.00		
Item 67	.62	.71	.42	.47	.57	.61	.61	.53	1.00	
Item 70R	.46	.53	.33	.53	.58	.45	.45	.54	.55	1.00

Note. R = reverse coded item.

Inter-item Correlation Matrix for Traditional Principal Preparation Programs

Item	Item 21	Item 33R	Item 41R	Item 45	Item 60	Item 65
Item 21	1.00					
Item 33R	.49	1.00				
Item 41R	.44	.51	1.00			
Item 45	.59	.54	.51	1.00		
Item 60	.59	.53	.54	.68	1.00	
Item 65	.60	.52	.53	.69	.67	1.00

Note. R = reverse coded item.

Inter-item Correlation Matrix for General Attitude

Item	Item 17R	Item 24	Item 31	Item 49R	Item 56	Item 59	Item 66R
Item 17R	1.00						
Item 24	.56	1.00					
Item 31	.52	.58	1.00				
Item 49R	.50	.62	.57	1.00			
Item 56	.50	.56	.56	.56	1.00		
Item 59	.50	.65	.53	.56	.71	1.00	
Item 66R	.51	.68	.61	.74	.61	.62	1.00

Note. R = reverse coded item.

Inter-item Correlation Matrix for Management

Item	Item 28	Item 36	Item 42	Item 74
Item 28	1.00			
Item 36	.58	1.00		
Item 42	.56	.63	1.00	
Item 74	.41	.48	.49	1.00

Inter-item Correlation Matrix for Community Acceptance

Item	Item 22	Item 27R	Item 38R	Item 69
Item 22	1.00			
Item 27R	.74	1.00		
Item 38R	.53	.57	1.00	
Item 69	.76	.75	.57	1.00

Note. R = reverse coded item.

Inter-item Correlation Matrix for Community Fit

Item	Item 43	Item 51	Item 54
Item 43	1.00		
Item 51	.48	1.00	
Item 54	.31	.50	1.00

Inter-item Correlation Matrix for Diverse Background

Item	Item 37	Item 63
Item 37	1.00	
Item 63	.55	1.00

Inter-item Correlation Matrix for Educational Environment

Item	Item 19R	Item 64R	Item 73
Item 19R	1.00		
Item 64R	.41	1.00	
Item 73	.44	.44	1.00

Note. R = reverse coded item. All inter-item correlations completed after the principal components analysis and only included items with a substantial loading ($\geq .40$).

APPENDIX G
CORRESPONDENCE

September 14, 2006

Dear Superintendent,

I am working on my dissertation regarding superintendents' willingness to hire alternatively licensed principals. In many parts of the country principal candidates are being licensed through alternative pathways. The debate as to whether or not these candidates possess the requisite skills and knowledge to effectively lead a school continues. But, will superintendents, as gatekeepers to school districts, afford these individuals the opportunity to prove their worth as principals? This is an effort to address this question and I am asking for your assistance with this research.

In two days I will send a cover letter with a link to a questionnaire regarding this topic. The questionnaire should take no longer than 30 minutes. I would greatly appreciate your participation.

Appreciatively,

Andrew P Kufel
Virginia Tech
Educational Leadership and Policy Studies

akufel@vt.edu
(540) 588-7349

September 14, 2006

Dear Superintendent,

Alternative licensure of school principals is expanding across the country. At least 19 states already have provisions for alternatively licensing principals, and several other states are considering permissive legislation. Despite such legislation, a major question remains – **How employable are these people?**

As a superintendent, you have much influence over the hiring of school principals. Your views determine, to a large extent, whether alternatively licensed principals will get jobs. Therefore, I am asking you to share your views on the alternative licensure of principals and the conditions under which you would be willing to hire alternatively licensed principals.

I would greatly appreciate your participation in a 30-minute questionnaire. The questionnaire is at <https://survey.vt.edu/survey/entry.jsp?id=1145463945468>. Your name will not be associated with any of your responses.

Thank you so much for helping with the study. I think the results will make a contribution to policy in Virginia and nationwide regarding alternative licensure for school principals, and more broadly, the reformation of principal preparation programs. If you have any questions, do not hesitate to contact me at akufel@vt.edu, akufel@rcs.k12.va.us, or (540)588-7349.

Appreciatively,

Andrew P. Kufel

Virginia Tech
Educational Leadership and Policy Studies

akufel@vt.edu
(540)588-7349

September 14, 2006

Dear superintendent –

I understand how extremely busy you are, and I would like to extend my sincerest appreciation to those who have completed the questionnaire on alternatively licensed principals. Your help and input have been invaluable for the completion of the study. I am still in the process of collecting data. If you have not completed the questionnaire, please take a few minutes to do so. The URL to the questionnaire is <https://survey.vt.edu/survey/entry.jsp?id=1145463945468> (place holder). The entire process should take no more than 30 minutes and your name will not be associated with your responses in the final report.

Please let me know if you questions.

Appreciatively,

Andrew P Kufel
Virginia Tech
Educational Leadership and Policy Studies

akufel@vt.edu
(540)588-7349

September 14, 2006

Dear superintendent –

I understand how extremely busy you are, and I would like to extend my sincerest appreciation to those who have completed the questionnaire on alternatively licensed principals. Your help and input have been invaluable for the completion of the study. I am still in the process of collecting data. If you have not completed the questionnaire, please take a few minutes to do so. The URL to the questionnaire is <https://survey.vt.edu/survey/entry.jsp?id=1145463945468> (place holder).

The entire process should take no more than 30 minutes. The results will be helpful to policymakers in Virginia and nationwide as they consider alternative licensure for school principals, and more broadly, they may help university faculty and others as they reform principal preparation programs.

Please let me know if you have questions.

Appreciatively,

Andrew P Kufel
Virginia Tech
Educational Leadership and Policy Studies

akufel@vt.edu
(540)588-7349

APPENDIX H

Kufel's Instrument to Measure the Predictor Variables Hypothesized to be Associated with Variation in the Willingness of Superintendents to Recommend Hiring Alternatively Licensed Principals

As you respond to the questionnaire please use this definition of an alternatively licensed principal.

An alternatively licensed principal candidate is a person from *inside education* who has been licensed or certified without receiving a master's degree in education administration. These candidates have a master's degree in education, experience in education, but have not completed a university-based principal preparation program. These candidates could include, but are not limited to, guidance counselors, reading specialists, and department heads.

An alternatively licensed principal candidate is a person from *outside education* who has been licensed or certified without receiving a master's degree in educational administration. These are candidates who have a master's degree in an area other than education, leadership experience outside education, no experience in education, and have not completed a university-based principal preparation program.

Please agree or disagree with each statement by checking the appropriate circle.

1. I would never hire an alternatively licensed principal.

Disagree Agree

2. I am passionately in favor of hiring alternatively licensed principals.

Disagree Agree

3. I am indifferent about hiring alternatively licensed school principals.

Disagree Agree

4. I would certainly hire an alternatively licensed principal.

Disagree Agree

5. In some cases, I might prefer an alternatively licensed principal.

Disagree Agree

6. I am more willing to consider hiring alternatively licensed principals than I used to be.

Disagree Agree

7. I would be concerned about hiring an alternatively licensed principal.

Disagree Agree

8. I would be extremely willing to hire an alternatively licensed principal.

Disagree Agree

9. I cannot think of an instance when I would hire an alternatively licensed principal.

Disagree Agree

10. I have never thought about hiring an alternatively licensed principal.

Disagree Agree

11. I probably would not hire an alternatively licensed principal.

Disagree Agree

Please respond to each item with either yes or no.

12. I have hired alternatively licensed teachers.

Yes

No

13. I have hired alternatively licensed principals.

Yes

No

14. My district has a clear induction program for all incoming principals.

Yes

No

Please rate how strongly you agree or disagree with each of the following statements by checking the appropriate circle.

15. Alternatively licensed principals could help teachers who are having difficulty with instruction.

Strongly Disagree Disagree Agree Strongly Agree

16. Alternatively licensed principals could lead positive change in a school.

Strongly Disagree Disagree Agree Strongly Agree

17. I do not believe in alternative licensure under any circumstances.

Strongly Disagree Disagree Agree Strongly Agree

18. In my district, fewer high-quality candidates are applying to fill the role of the principalship.

Strongly Disagree Disagree Agree Strongly Agree

19. Alternatively licensed principals would not understand the bureaucracy of public school systems.

Strongly Disagree Disagree Agree Strongly Agree

20. Alternatively licensed principals could effectively evaluate the quality of instruction.

Strongly Disagree Disagree Agree Strongly Agree

21. Traditional principal preparation programs provide the training necessary for future principals to be successful.

Strongly Disagree Disagree Agree Strongly Agree

22. My community would perceive an alternatively licensed principal as qualified for the job.

Strongly Disagree Disagree Agree Strongly Agree

23. A school in my district could have some special circumstances that could require a principal who has been prepared in a way other than the traditional principal preparation route.

Strongly Disagree Disagree Agree Strongly Agree

24. I am in favor of alternative licensure in education.

Strongly Disagree Disagree Agree Strongly Agree

25. When hiring a principal I never factor in how well the candidate will fit the community.

Strongly Disagree Disagree Agree Strongly Agree

26. No single principal preparation method is sufficient to meet the leadership needs of schools in my district.

Strongly Disagree Disagree Agree Strongly Agree

27. My community would be concerned if an alternatively licensed principal were the head of a school in our district.

Strongly Disagree Disagree Agree Strongly Agree

28. Alternatively licensed principals would manage school facilities effectively.

Strongly Disagree Disagree Agree Strongly Agree

29. Alternatively licensed principals would be viewed as credible leaders in the eyes of the teachers in my district.

Strongly Disagree Disagree Agree Strongly Agree

30. The quality of principal candidates in my district's applicant pool has diminished.

Strongly Disagree Disagree Agree Strongly Agree

31. I believe alternative licensure is a good idea for some school districts.

Strongly Disagree Disagree Agree Strongly Agree

32. Alternatively licensed principals could help teachers use research-based instructional strategies.

Strongly Disagree Disagree Agree Strongly Agree

33. Coursework in traditional principal preparation programs has little to do with the job of being a principal.

Strongly Disagree Disagree Agree Strongly Agree

34. There are few candidates in the principal applicant pool whom I would seriously consider for a principal vacancy.

Strongly Disagree Disagree Agree Strongly Agree

35. Alternatively licensed principals could not meet the accountability standards in my district.

Strongly Disagree Disagree Agree Strongly Agree

36. Alternatively licensed principals have effective leadership skills.

Strongly Disagree Disagree Agree Strongly Agree

37. A school district needs principals who have diverse experiential backgrounds.

Strongly Disagree Disagree Agree Strongly Agree

38. School partners in my district would not accept an alternatively licensed

principal.

Strongly Disagree Disagree Agree Strongly Agree

39. The quantity of principal candidates in the applicant pool has increased.

Strongly Disagree Disagree Agree Strongly Agree

40. Alternatively licensed principals could help teachers use pacing guides for instruction.

Strongly Disagree Disagree Agree Strongly Agree

41. Traditional principal preparation programs do not meet our school district's needs.

Strongly Disagree Disagree Agree Strongly Agree

42. Alternatively licensed principals are likely to have the ability to lead people in schools.

Strongly Disagree Disagree Agree Strongly Agree

43. A principal must be a good match for the community.

Strongly Disagree Disagree Agree Strongly Agree

44. The number of quality principal candidates applying to fill vacancies has increased in recent years.

Strongly Disagree Disagree Agree Strongly Agree

45. Traditional principal preparation programs train high quality leaders.

Strongly Disagree Disagree Agree Strongly Agree

46. My district consistently attracts numerous principal candidates to fill vacancies.

Strongly Disagree Disagree Agree Strongly Agree

47. The leadership role in a particular school may call for someone who has not been prepared in the traditional way.

Strongly Disagree Disagree Agree Strongly Agree

48. Alternatively licensed principals would not understand how to develop effective instruction.

Strongly Disagree Disagree Agree Strongly Agree

49. Alternative licensure has no place in education.

Strongly Disagree Disagree Agree Strongly Agree

50. My district is currently experiencing some degree of surplus in qualified applicants for the principal position.

Strongly Disagree Disagree Agree Strongly Agree

51. I only consider hiring principals who fit our community.

Strongly Disagree Disagree Agree Strongly Agree

52. Alternatively licensed principals could provide an appropriate educational vision for the school.

Strongly Disagree Disagree Agree Strongly Agree

53. The students in my district would accept an alternatively licensed principal.

Strongly Disagree Disagree Agree Strongly Agree

54. The success of a principal candidate is predicated on how well the candidate fits in with the community.

Strongly Disagree Disagree Agree Strongly Agree

55. At some point a school in my district may need a principal who has a special kind of educational background (e. g., mathematics, English as a Second Language).

Strongly Disagree Disagree Agree Strongly Agree

56. Alternative licensure is an idea that should be fully utilized in education.

Strongly Disagree Disagree Agree Strongly Agree

57. Alternatively licensed principals would not be able to deal with the day-to-day pressures experienced by principals in my school district.

Strongly Disagree Disagree Agree Strongly Agree

58. Alternatively licensed principals could lead a school in the improvement process.

Strongly Disagree Disagree Agree Strongly Agree

59. Alternative licensure is a concept that is long overdue.

Strongly Disagree Disagree Agree Strongly Agree

60. Students trained in traditional principal preparation programs are equipped to meet the demands of the principalship.

Strongly Disagree Disagree Agree Strongly Agree

61. Alternatively licensed principals cannot be instructional leaders.

Strongly Disagree Disagree Agree Strongly Agree

62. The quantity of principal candidates in the applicant pool has diminished.

Strongly Disagree Disagree Agree Strongly Agree

63. A school district needs principals who have diverse educational backgrounds.

Strongly Disagree Disagree Agree Strongly Agree

64. Alternatively licensed principals may not understand how school decisions affect the community.

Strongly Disagree Disagree Agree Strongly Agree

65. Traditional principal preparation programs are of high quality.

Strongly Disagree Disagree Agree Strongly Agree

66. I am opposed to alternative licensure in education.

Strongly Disagree Disagree Agree Strongly Agree

67. My district is experiencing a shortage of candidates in the principal applicant pool.

Strongly Disagree Disagree Agree Strongly Agree

68. Some schools in my district would favor a principal who has been alternatively licensed.

Strongly Disagree Disagree Agree Strongly Agree

69. Parents in my district would accept alternatively licensed principals.

Strongly Disagree Disagree Agree Strongly Agree

70. My district is experiencing a surplus of candidates in the principal applicant pool.

Strongly Disagree Disagree Agree Strongly Agree

71. Alternatively licensed principals would not understand the centrality of education within a community.

Strongly Disagree Disagree Agree Strongly Agree

72. The community's ideals may call for a principal who has not been prepared in the traditional way.

Strongly Disagree Disagree Agree Strongly Agree

73. Alternatively licensed principals would understand the politics of public education.

Strongly Disagree Disagree Agree Strongly Agree

74. Alternatively licensed principals are likely to have the ability to manage people.

Strongly Disagree Disagree Agree Strongly Agree

75. Under the given definition, would you recommend hiring an alternatively licensed principal?

Yes No

76. In which state are you a superintendent?

77. How many years, including the current year, have you been a superintendent?

78. How would you classify your school district?

rural

rural/suburban

suburban

suburban/urban

urban

other:

79. Does your district allow you to hire alternatively licensed principals under the given definition?

Yes

No

80. How many schools are in your district?

81. How many students are in your district?

82. Would you be more willing to support the hiring of alternatively licensed

assistant principals?

Yes

No

Congratulations, you have completed the questionnaire. Please review your answers to ensure you responded to every item.

When you are finished, please click SUBMIT.

Thanks,
Andrew Kufel

APPENDIX I

Correlation Coefficients, Significance Levels, and Ns for the Relationships Among all Predictor Variables

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1	<i>r</i>	1.00	.20	.01	.07	.13	.13	.01	.31	.16	.22	.07	.07	.08	.21	.11	.16	.19	-.00	.17
	<i>p</i>	.	.00	.43	.12	.01	.01	.41	.00	.00	.00	.08	.08	.07	.00	.02	.00	.00	.48	.00
	<i>n</i>	374	375	374	320	374	374	374	374	374	374	371	372	374	364	368	365	367	375	338
2	<i>r</i>		1.00	.04	.10	.23	.11	-.02	.24	.20	.29	-.07	.12	.19	.26	.10	.22	.21	.02	.16
	<i>p</i>		.	.24	.04	.00	.01	.34	.00	.00	.00	.09	.01	.00	.00	.02	.00	.00	.37	.00
	<i>n</i>		379	379	322	378	378	378	378	378	378	375	376	378	366	371	368	370	379	341
3	<i>r</i>			1.00	.11	-.01	-.00	.01	.03	.04	-.08	.08	.05	.06	.01	.25	.05	-.05	-.05	.22
	<i>p</i>			.	.02	.42	.49	.40	.27	.21	.06	.07	.15	.12	.41	.00	.16	.18	.18	.00
	<i>n</i>			380	323	379	379	379	379	379	376	377	379	367	372	369	371	380	342	
4	<i>r</i>				1.00	.04	.07	.15	.07	.00	-.02	-.00	-.05	.09	-.01	-.02	.08	-.01	.04	.02
	<i>p</i>				.	.25	.10	.00	.11	.50	.34	.49	.17	.06	.43	.39	.09	.46	.26	.35
	<i>n</i>				323	322	322	322	322	322	321	321	322	317	321	317	318	323	312	
5	<i>r</i>					1.00	.34	-.16	.74	.65	.77	-.16	.17	.68	.65	-.01	.33	.57	.24	.05
	<i>p</i>					.	.00	.00	.00	.00	.00	.00	.00	.00	.00	.46	.00	.00	.00	.17
	<i>n</i>					379	379	379	379	379	376	377	379	367	371	368	370	379	341	
6	<i>r</i>						1.00	-.25	.37	.28	.32	-.02	.17	.22	.33	.09	.08	.32	.11	.08
	<i>p</i>						.	.00	.00	.00	.00	.34	.00	.00	.00	.04	.06	.00	.02	.07
	<i>n</i>						379	379	379	379	379	376	377	379	367	371	368	370	379	341
7	<i>r</i>							1.00	-.25	-.17	-.16	.15	-.07	-.09	-.12	-.10	-.08	-.22	.10	-.06
	<i>p</i>							.	.00	.00	.00	.00	.09	.05	.01	.03	.07	.00	.03	.15
	<i>n</i>							379	379	379	379	376	377	379	367	371	368	370	379	341

(table continues)

Table (continued)

8	<i>r</i>								1.00	.65	.65	-.09	.13	.54	.60	.01	.30	.54	.10	.06
	<i>p</i>								.	.00	.00	.04	.01	.00	.00	.46	.00	.00	.03	.13
	<i>n</i>								379	379	379	376	377	379	367	371	368	370	379	341
9	<i>r</i>									1.00	.54	-.04	.12	.54	.48	-.03	.21	.45	.02	.05
	<i>p</i>								.	.00	.23	.01	.00	.00	.32	.00	.00	.00	.38	.18
	<i>n</i>								379	379	376	377	379	367	371	368	370	379	341	
10	<i>r</i>										1.00	-.18	.11	.54	.67	.04	.36	.52	.20	.08
	<i>p</i>								.	.00	.00	.02	.00	.00	.23	.00	.00	.00	.00	.06
	<i>n</i>								379	376	377	379	367	371	368	370	379	341		
11	<i>r</i>											1.00	.05	-.18	-.09	.01	-.07	-.04	.05	-.06
	<i>p</i>								.		.18	.00	.04	.49	.09	.22	.15	.13		
	<i>n</i>								376	375	376	366	369	367	369	376	339			
12	<i>r</i>												1.00	.03	.22	.06	.03	.25	.08	.02
	<i>p</i>								.				.28	.00	.11	.32	.00	.07	.33	
	<i>n</i>								377	377	365	369	366	368	377	339				
13	<i>r</i>													1.00	.48	.08	.24	.35	.09	.10
	<i>p</i>								.					.00	.06	.00	.00	.04	.04	
	<i>n</i>								379	367	371	368	370	379	341					
14	<i>r</i>														1.00	.07	.31	.57	.19	.08
	<i>p</i>								.						.11	.00	.00	.00	.07	
	<i>n</i>								367	363	362	363	367	334						
15	<i>r</i>															1.00	.04	-.06	.03	.38
	<i>p</i>								.						.23	.15	.31	.00		
	<i>n</i>								372	365	367	372	338							

(table continues)

Table (continued)

16	<i>r</i>																1.00	.18	-.06	-.01	
	<i>p</i>																	.00	.14	.40	
	<i>n</i>																	369	365	369	335
17	<i>r</i>																		1.00	.16	.05
	<i>p</i>																		.00	.17	
	<i>n</i>																		371	371	337
18	<i>r</i>																			1.00	-.00
	<i>p</i>																			.49	
	<i>n</i>																			380	342
19	<i>r</i>																				1.00
	<i>p</i>																				.49
	<i>n</i>																				342

Note. Key is as follows:

1. superintendents' past behaviors hiring alternatively licensed teachers
2. superintendents' past behaviors hiring alternatively licensed principals
3. the presence of an induction program for new principals
4. The numbers of years as superintendent
5. superintendents' perceptions of the ability of alternatively licensed principals to lead instruction
6. superintendents' perceptions of the supply of the principal applicant pool
7. superintendents' perceptions of the quality of traditional principal preparation programs
8. superintendents' general attitudes toward alternative licensure
9. superintendents' perceptions of the management capacity of alternatively licensed principals
10. superintendents' perceptions of the community acceptance of alternatively licensed principals
11. superintendents' perceptions of the importance placed on whether a principal candidates fits the community
12. superintendents' perceptions of the of the specific leadership needs of the school district

(tables continues)

Table (*continued*)

13. superintendents' perceptions of alternatively licensed principals' ability to understand and work within the educational environment
14. superintendents' willingness to recommend hiring alternatively licensed principals under the given definition (0 = no, 1 = yes)
15. district classification (1 = rural, 2 = rural/suburban, 3 = suburban, 4 = suburban/urban, 5 = urban)
16. superintendents' ability to hire alternatively licensed principal in superintendents' school district (0 = no, 1 = yes)
17. superintendents' willingness to hire alternatively licensed assistant principals (0 = no, 1 = yes)
18. inside or outside education definition group
19. Number of schools in superintendents' district

VITA

Andrew P. Kufel

ACADEMIC EXPERIENCES

Virginia Polytechnic Institute & State University, Blacksburg, VA, December 2007, PhD
Educational Leadership and Policy Studies

Virginia Polytechnic Institute & State University, Blacksburg, VA, July 2003, MA
Educational Leadership and Policy Studies

State University of New York at Geneseo, Geneseo, NY, December 2000, BA in
Mathematics, Secondary Education (7-12)

PROFESSIONAL EXPERIENCES

August 2005 - Present – Math teacher and coach (Geometry, Algebra, and basketball),
Roanoke County Central Schools, Cave Spring High School

August 2002 - August 2005 – Graduate assistant, Virginia Polytechnic Institute & State
University School of Education

August 2001 - July 2002 – Math teacher and coach (Math 8, Math 8 Honors, and
basketball), Livonia Central School District, Livonia Junior/Senior High School

February 2001 - June 2001 – Math teacher (Pre-Calculus and Algebra), Lancaster Central
Schools, Lancaster Senior High School

PAPERS & PRESENTATIONS

Gaudreau, P.A., Kufel, A.P., & Parks, D.J. (2006, Fall). Quality Internships for School
Leaders: Meeting the Challenge. *AASA Journal of Scholarship and Practice*, 3(3),
27-32.

Parks, D. J., Kufel, A. P., & Awuor, R. (2006, August). *Alternative Licensure of School
Principals: An Update*.

Gaudreau, P. A., Kufel, A. P. & Parks, D. J. (2005, August). *Variation in the School
Leaders Internship across the Commonwealth of Virginia*.

Kufel, A. P., Gaudreau, P. A., & Parks, D. J. (2005, April). *Hiring alternatively licensed
principals: Superintendents' concerns and conditions for employment*.

Kufel, A. P., Gaudreau, P. A., & Parks, D. J. (2004, August). *Superintendents' beliefs
about alternative licensure of school principals*.

Andrew Kufel was born in Buffalo, New York, moved to Roanoke, Virginia, in August
2002, and continues to reside there with his father, sisters, and fiancé. He may be
contacted through email at akufel@vt.edu.