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Abstract

Superintendent formal mentorship programs have traditionally relied on geographic proximity and mentor availability to pair new superintendents with mentors. This study examined which mentor characteristics contribute to mentee satisfaction with the formal mentorship program. This study employed a quantitative research design in which participants completed a survey used to compare mentor characteristics to mentee satisfaction with the program. Seventy-three (49.6%) superintendents participated in the study, of which 19 had participated in a formal mentorship program. The overall research results suggest that two mentor characteristics, *Leadership/Disposition Qualities* and *Mentor Availability* had a significant positive relationship to mentee satisfaction with the formal mentorship program. This study suggests contemporary technology may be utilized in order to facilitate mentorship pairing based on valued characteristics rather than the traditional criteria of geographic proximity and mentor availability.

Keywords: *mentorship, superintendent, rural leadership, technology and mentoring*

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INTRODUCTION

Current mentorship opportunities for rural superintendents are designed to provide for face-to-face interactions and mentor pairings based on geographic location (Augustine-Shaw, 2015; Beem, 2007; Monson, 2019, personal communication, May 13, 2019). This method limits the availability of mentors that will be good matches for mentees based on geographic proximity which is why we examined the effectiveness of superintendent mentorship participation, in a rural state in the Midwest. Through the utilization of contemporary technologies, mentorship programs could largely diminish the limiting factor of geographic proximity and focus mentorship pairings on other characteristics that would be more likely to produce successful results. By focusing on characteristics that lead to positive mentorship relationships and facilitating better mentorship pairings through utilizing contemporary technologies, rural school districts have an opportunity to provide new superintendents with the best chances for success, and possibly experience a lower rate of superintendent turnover.

Rural Leadership

While much of the United States population is concentrated on the East and West coasts, a large majority of the territory is defined as rural, with small amounts of population scattered throughout agricultural and public lands. In fact, Cicchinelli and Beesley (2017) estimated that 9,700,000 students attend rural schools, which accounts for one third of public schools in the United States. Also, rural communities are located in all 50 states and as a block represent a large segment of the nation (Jimerson, 2005). The United States Census has determined that in 2010, 80.7% of the population lived in urban clusters or urban areas but occupied only 3% of the land area (Ratcliffe et al., 2016).

This rural area presents unique challenges for those charged with operating school districts. While most superintendents running larger districts in urban centers have the ability to focus on responsibilities associated with their position or even employ assistant superintendents, rural school leaders are often tasked with performing superintendent duties along with any other duty

necessary to make the school district function (Howley et al., 2014). This may include performing as a building principal, special education director, coach, or even bus driver. With this increase in duties comes a natural increase in stressors on the rural superintendent.

In order to serve the United States' rural education population, mentorship opportunities for superintendents are becoming more common throughout the country (Beem, 2007). Superintendents often rely on informal mentorship to meet the needs of their support throughout their careers (Monahan, 2012; Parfitt & Rose, 2020). These relationships develop to provide superintendents with support and offer assistance with significant issues in a trusting environment (Bynum, 2015). While informal mentorships naturally develop through interaction with colleagues, formal mentorship programs have systematically paired new superintendents with experienced superintendent mentors. The pairing for rural superintendents has often been determined by geographic proximity, and availability of experienced superintendents (R. Monson, personal communication, May 13, 2019).

Contextual Framework of a Rural, Midwest State

The rural, Midwest state in this study is overwhelmingly rural. To keep the anonymity of the state, it has a land area between 70,000 and 100,000 square miles and a total population between 650,000 and 950,000 people as of July 1st, 2018 (United States Census Bureau, 2018). There are only two areas over 50,000 people that could be described as urban. The state has 149 school districts with student enrollments ranging from under 100 to almost 24,000 students, with district land areas ranging from 20 to 3,125 square miles.

This rural state requires one of two criteria to become a superintendent: program completion or alternative certificate. A superintendent program consists of possessing a bachelor's degree, and full completion of a specialist degree in K-12 school superintendent from a regionally accredited institution of higher education. The alternative certificate is an option for those with experience in leadership outside of the education field. To satisfy this certification, an individual must have a bachelor's degree or higher, have three or more years of experience in a management role, and must pass the state-designated school superintendent assessment. Completion of an alternative certification will provide the individual a one-year license, which can be renewed four times in which the individual must complete a school superintendent program and obtain a standard certificate.

Scope of Current Program

Superintendent mentorship programs in this rural, Midwest state are currently operated through an umbrella organization comprised of the state's school administrator association, working with a stated purpose to improve administrative leadership skills through ongoing professional development programs. The superintendent mentoring program has been operating for more than seven years in some form, with the organization continually revising and improving the program. The mentorship program is designed to last one year, and due to the small number of school districts in the state and rate of turnover, on average only a few new superintendents participate in the program each year. There are no formal requirements for participation in the program, or to be a mentor in the program. New superintendents are matched with mentors through the availability of experienced superintendents with similar-sized districts in close proximity to the mentees (R. Monson, personal communication, May 13, 2019).

Current mentorship program practices are centered around face-to-face efforts supplemented by phone and email conversations. This has been the standard practice since the program's inception. At this point, formal mentorship of superintendents in this rural state has not explored the use of technology to facilitate mentorship relationships and activities. Other formal programs such as teacher (Fransson, 2016) or university student (Guthrie & Meriwether, 2018; Pollard & Kumar, 2021) mentorship programs have attempted to implement these practices into mentorship programs, but few formal programs for superintendents have incorporated this practice.

Authentic Leadership Theory

Authentic leadership is a newer leadership theory where honesty and trustworthiness are at the core of leadership (Northouse, 2016) and a study conducted by Shapira-Lishchinsky and Levy-Gazenfrantz (2015), indicated that mentoring characterized by authentic leadership could advance mentee's leadership strategies within their educational spheres. This type of leadership can be employed through different viewpoints including intrapersonal perspective, interpersonal perspective, and developmental perspective (Northouse, 2016). George (2003) suggests that in order to be authentic, leaders must demonstrate an understanding of purpose, possess strong values, establish trusting relationships with others, demonstrate self-discipline, and are passionate about their mission. When considering the situation of mentoring administrators, authentic leadership becomes essential because mentors need to establish a trusting relationship to help facilitate buy-in to the program and meaningful growth (Jamison, et al., 2020). Of the five

characteristics listed by George (2003) as being essential to authentic leadership, Tharpe's study (2017) suggests that the most important characteristic is the ability for leaders to form relationships. This can be viewed as the foundation that is required before action can be taken to guide new administrators through their first year in the profession.

Purpose of the Study

The purpose of this study was to examine the effectiveness of superintendent mentorship participation, in a rural state in the Midwest. Survey data collected from superintendents throughout the state were examined in order to assess participation as a mentee, methods, and perceived effectiveness of the program. The study set out to determine the effect of utilizing contemporary technologies in superintendent mentorship relationships.

Research Questions

This study was guided by the following questions:

1. What criteria were used to establish mentorship relationship between a new superintendent and an experienced superintendent?
2. To what extent did mentor characteristics impact the superintendent mentee's perceived success of the mentorship relationship?
3. What are the barriers experienced in completing mentorship program tasks or mentorship relation activities?
4. To what extent does technology impact the perceived success of the mentorship relationship?

Significance of Study

Mentorship programs have been implemented by a variety of organizations in order to support new and experienced superintendents. This study examined practices employed in mentorship relationships and determined the perceived effectiveness of these methods in relation to superintendent induction and performance. The results of this study could provide school districts and state or professional organizations, who are responsible for mentorship programs, information about best practices and mentor characteristics that will produce successful mentorship relationships to maximize mentorship opportunities for new and experienced rural superintendents.

REVIEW OF SELECTED LITERATURE

Modern Challenges in Education

As education progresses through the 21st century, the demands on school districts continue to increase in or-

der to meet the needs of students and communities. Much of the burden for such change falls on school leaders to revise educational models and current operating systems. In addition to traditional management issues, Augustine-Shaw and Funk (2013) pointed out that superintendents are more frequently charged with being knowledgeable in new areas of classroom assessments and accountability systems. Information spreads rapidly in the current digital society, but no one superintendent can be expected to possess all the answers they are expected to produce.

Challenges in Rural Districts

In addition to all the demands placed on public education, rural districts often face additional challenges which are not experienced by their suburban and urban counterparts. The National Center for Educational Statistics' (2006) definition for a fringe rural school district is a "census-defined rural territory that is less than or equal to 5 miles from an urbanized area, as well as a rural territory that is less than or equal to 2.5 miles from an urban cluster" (p. 1). This is the base definition of rural, and the term would include areas further from urbanized areas. Living and working in a rural community may require school leaders to manage the unique challenges the community encounters. These challenges may include significant poverty, limited resources, political dynamics from serving as the sole leader wearing many hats, and intense local traditions and values impeding necessary change (Augustine-Shaw, 2016). These unique challenges present a whole new level of difficulty school leaders face when trying to make improvements that will benefit their districts.

Geographic isolation. Distances between rural school district operational centers typically span great distances, which cause rural superintendents to face isolation due to physical remoteness of the communities in which they work, which can contribute to the "fishbowl experience of leading in a small town" (Macaluso, 2012, p. 23). Augustine-Shaw (2015) relayed the importance of forming positive relationships in superintendents' rural school districts. Along with being isolated in small communities, another factor that can put pressure on the superintendent is the expectation of guiding the recreational and social activities which take place in these communities (Burmeister, 2018).

Additional responsibilities. Rural school districts often face declining populations, which has a compounding effect of lower student enrollment and then reduced state aid to the district (Duncan & Stock, 2010). The limited funds in rural districts often result in a higher reliance on state aid, inadequate staffing, and the inability to provide programming beyond the basics (Macaluso, 2012). Rural superintendents are usually challenged to

operate on their given budget due to declining enrollments or inadequate funding (Plath, 2017). Because of these limited funds, additional roles and responsibilities are added to the job description with most rural superintendents. These leaders are often carrying out responsibilities other superintendents do not have to perform and working with fewer resources. Districts with large enrollments may have an abundance of district-level administration such as assistant superintendents, human resources administrators, or risk management departments, but rural superintendents in districts with smaller enrollments are more likely to be responsible for covering all those responsibilities (Burmeister, 2018). Due to the lack of task-specific personnel, rural superintendents are often tasked with putting in long hours in order to have a mastery of facilities maintenance, construction, transportation, human resources, curriculum, and school law (Yarger, 2018).

Formal Mentor Programs

In order to address these challenges, many school districts have implemented formal mentor programs to help beginning school leaders adapt to their new roles. Mentorship programs for new school leaders are a critical component to superintendents' success (Augustine-Shaw, 2016; Beem, 2007; Promisee-Bynum, 2010; Quirk, 2012; Woolsey, 2013). According to Augustine-Shaw and Funk (2013), formal mentorship programs have the ability to reduce the feeling of first and second-year superintendents from being overwhelmed with the responsibility of leadership and complexity of modern school districts. Parylo et al. (2012) reported that new and experienced principals viewed mentoring as the best support they received and valued the safety net that it provided in their role. Promisee-Bynum (2010) demonstrated that the two basic functions of mentoring are to promote psychosocial and career improvements in mentees. Psychosocial functions of mentoring include acceptance and confirmation, counseling, friendship, and providing a role model. These mentoring relationships can improve leadership skills and increase retention (Janesko, 2020). The career development function of mentoring would focus on exposure and visibility, coaching, sponsorship, and assigning challenging projects (Promisee-Bynum, 2010).

Augustine-Shaw (2016) noted that formal mentoring programs "enable new leaders to more fully transition from their preparation program into successful practice when supported by experienced and trained mentors" (p. 169). Formal mentorship programs are effective in part because they are developed around a set of expectations that guide both mentors and mentees through the process of learning their new roles (Harmer, 2016). Through these programs, new school leaders are provided a structure that will guide them through the early

years of their career with an experienced mentor to provide them feedback (Sherman, 2019). Formal mentorships provide new and experienced school leaders with a unique form of professional development that is naturally embedded in their current positions (Parylo et al., 2012). This structure places new leaders in an environment designed for success and can cover much of the problems they are likely to encounter.

Formal mentor programs have been established by state associations, higher education institutions, state departments of education, and school boards associations (Beem, 2007). By setting up or participating in formal mentor programs, districts are able to provide veteran school leaders the opportunity to share their personal experience and skills with a new school leader (Woolsey, 2013). Determining who participates as a mentor varies across the different programs. The most common mentor participants selected by programs are either current practicing or recently retired superintendents.

Standards and Mentoring Programs

The recent national emphasis on accountability in K-12 education highlights the importance of success for all students, and formal mentoring programs must be unique to the targeting audience. For example, formal mentoring programs targeting teachers should be grounded in national standards such as the Council for the Accreditation of Educator Preparation (CAEP). These standards are based on the best practices for classroom teachers. The formal mentoring programs targeting principals should be grounded in the building-level standards from the National Educational Leadership Preparation (NELP). These standards focus on instructional leadership and management at the building-level. Formal mentoring programs targeting superintendents should be grounded in the district-level standards from NELP, which include the best practices from a district-level perspective. These clear and concise leadership standards can act as a guide for formal mentorship programs and because of the increase in accountability, NELP standards are the foundation for program design, accreditation review, and state program approval (NPBEA, 2018).

Mentorship Challenges and 21st Century Methods

Geography can be a considerable challenge for mentors and mentees to overcome. In many rural states across the country, school districts have great distances between them, and finding a good mentor match could be challenging. Thornton (2014) determined that teacher mentors found geography and the ability to meet with

mentees as a substantial obstacle. Augustine-Shaw and Funk (2013) have noted that educators in Kansas face this same problem, with some of their rural superintendents living hours away from their closest professional mentors. A hinderance of this geographical isolation is the opportunity to discuss important matters, get information, or seek advice in a face-to-face setting, and according to Yarger (2018), “are at a higher risk of making mistakes and feeling alone on the job with no mentor to help guide them through difficult situations” (p. 46). As contemporary technology advances, mentorship programs can benefit by utilizing tools that can minimize obstacles for successful mentorship program completion.

Technology use in mentorships. As technology advances, mentorship programs have been able to employ new methods to facilitate effective mentorship relationships. Some of these new methods have been utilized more recently through teacher mentorship programs (Bang, 2013; Cinkara & Arslan, 2017; Dorner & Kumar, 2017; Kovalchuck & Vorotnykova, 2017; Legler, 2017; Lord & Coninx, 2012; Suk Hwang & Vrongistinos, 2012; Wortmann et al., 2008), as opposed to programs focused on school district leaders.

A study conducted by Fransson (2016) focused on teacher mentoring programs and suggested that participants would have been hesitant in participating in the program had it required travel for face-to-face sessions due to the time constraints. Hodges et al. (2014) conducted a similar study on a university student mentoring program and suggested there is no significant difference between face-to-face or e-sponsors in the quality of interactions or perceived helpfulness of mentors. Though the actual technology may not improve mentorship relationships, it provides a tool mentors can use to reduce the challenges geographic distance creates. When paired with good mentors, Charbonneau-Gowdy et al. (2016) noted that technology-enabled opportunities for pre-service teachers assisted with constructing knowledge and empowered their identities.

While contemporary technology can be useful, Owen (2015) suggests that it requires more attention to oral communication and an understanding that mentors may not be as familiar with mentee’s context when working with them remotely. Participants in mentorship programs should keep in mind that much of the understanding from interactions happens in the form of body language, speech tone, as well as back and forth dialogue. Contemporary technology does not always provide those cues, and efforts should be taken to clearly articulate thoughts and ideas with attention to missing forms of information.

Video conferencing. One method used to achieve real-time discussions from different locations is to employ video conferencing in order to conduct a meeting between mentors and mentees. While studying the Kansas

Educational Leadership Institute’s superintendent mentor program, Augustine-Shaw (2015) noted that 100% of mentees reported that the frequency of face-to-face interactions with mentors met their needs. In another study, Fransson (2016) reported that participants of an online teacher mentor program felt as though the online platform did not provide participants an opportunity to develop the social relationships or informal discussions that are beneficial for successful mentoring relationships. Recognizing the effectiveness of face-to-face interactions, video conferencing has been used as a way to perform this task when geographic limitations prevent mentors from visiting mentee sites. Hartung and Harvey (2015) have demonstrated that online video environments were effective at recreating face-to-face interactions without requiring mentorship participants to travel.

Access and time. New superintendents are often challenged for time, and therefore a program designed to respect a leaders schedule and numerous demands is necessary (Augustine-Shaw & Hachiya, 2017). Contemporary technology can help alleviate the time constraint faced by new leaders and mentors with demanding schedules. An added bonus of a virtual meeting environment was the flexibility of meeting times and if something did come up these meetings could be rescheduled easier (Hartung & Harvey, 2015). Charbonneau-Gowdy et al. (2016) recognize that using an Online Social Network allowed mentees 24-hour access to mentoring which had a positive effect due to participants’ busy schedules. Cinkara and Arslan (2017) also point out that e-mentoring is time and place independent and could be helpful for teachers in their study for those located in relatively rural or isolated areas who lacked access to a large pool of colleagues. This same system could also prove valuable for rural superintendents, as they traditionally experience busy schedules and have limited access to colleagues.

Hodges et al. (2014) acknowledged that even though the quality of mentorship may not improve with technology, “immediacy and spontaneity of using electronic communication . . . likely allowed the e-Sponsors and their proteges more opportunities to reduce barriers and to establish rapport, especially early in the relationship” (p. 16). Stewart and Carpenter (2009) promoted the benefits of electronic communication by showcasing how videoconferencing and email allows communication to occur without scheduling, thus enabling greater flexibility for learning while also helping to alleviate participants’ sense of isolation and need for support.

As mentorship programs for superintendents become more common, mentors will need to change with the tools available. Formal and informal mentorship relationships will continue to evolve to include contemporary technologies. Guthrie and Meriwether (2018) remind mentors to continue to “view students’ digital worlds

Table 1. Correlation Between Survey and Research

Survey Question	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Research Question	P	P	P	P	1	2	2	2	3	4	P	1	2	2	2	3	4

Note: P represents *Participant Information*.

through their eyes” in order to provide a meaningful platform in which to operate (pp. 107-108). This advice suggests that mentorships can expect to continue changing as contemporary technologies become more standard and used regularly.

METHODS

Research Design

Using a quantitative survey design, we focused on determining how rural superintendents maximized mentorship opportunities. Superintendents were asked to reflect on past or current mentorship programs in which they were participants as mentees. Participation in the study was voluntary and was limited to superintendents within the state’s public-school system.

Population

This study took place in a rural, Midwest state with a total of 149 school districts, each employing a superintendent. All superintendents were asked to participate in the survey through an email invitation containing a link to the survey. This convenience sample included all 149 superintendents in the Midwest state. A list of potential participants was generated using data from the state’s Department of Education website, and contact was made using the state email system.

Instrumentation

A researcher-designed survey based on the literature review was used in the study to determine the essential components of mentorship programs and practices in the rural state. The questionnaire was validated using a survey matrix ([Appendix A](#)) which was created employing the literature review. The questionnaire was field-tested by five superintendents before sending it to research participants. Based on the superintendent feedback of the pilot survey, only minor edits and revisions were made to terminology and for clarity. The survey consisted of 17 questions divided into two components and was created using Google forms and completed by participants online ([Appendix B](#)). It also contained a mix of multiple-choice questions, fill in the blank questions, and questions constructed on 7-point and 5-point Likert scale.

Data Collection

The method employed for data collection in this study was survey research. Self-report surveys were administered through email using Google forms, which allowed research participants the ability to access and complete the survey using a direct link contained in the contact email. A generic email template was created in order to provide consistent communication to 149 potential study participants to include all active superintendents in the Midwestern State. The email included a description of the study followed by a request to participate in the study. Participants would then complete the questionnaire accessed through an internet link. The first component of the survey consisted of collecting demographic information. The second component of the survey was used to determine if the superintendent has participated in any form of a mentorship program, and if so, the effectiveness of methods utilized throughout the mentorship experience.

Data Analysis

Seventy-three superintendents participated in the survey, of which 19 of the 73 had participated in a formal mentorship program in which data could be collected for the study. Data from the surveys were analyzed utilizing Jeffrey’s Amazing Statistics Program (JASP) statistical software. Frequency distributions were employed to measure mean and standard deviation to create a descriptive analysis of survey responses for participants. Research questions were answered in part by data obtained through compiled survey data, as well as information from surveys which cannot be quantified such as district size, participation in mentorship programs, and years of experience.

Survey questions one, two, and three, as well as questions four and eleven on the superintendent survey provide an overview of the superintendent demographics, assist in designating rural school district status of the participants, and determined participation in mentorship relationships. Questions five and twelve on the superintendent survey were used to answer question one of the research questions: What criteria was used to establish mentorship relationships? This was done by collecting pairing information for both formal and informal programs as well as specific known criteria used to match mentors and mentees.

Survey questions six, seven, eight, thirteen, fourteen,

Table 2. Criteria Used to Establish Formal Mentorship

Criteria	<i>n</i>	%
Mentor Experience	8	42.1
Geographic Proximity	6	31.6
Similar District Demographics	4	21.1
Unsure	3	15.8
Availability	3	15.8
Previous Experience	2	10.5
Search Consultants	1	5.3

and fifteen were used to quantify a response to research questions number two: To what extent did mentor characteristics impact the mentee's perceived success of the mentorship relationship? A statistical correlation was formulated by comparing superintendent responses in survey questions six and thirteen against their responses in survey questions seven and fourteen respectively.

Research question number three was computed through direct responses to survey questions number nine and sixteen. Inferential data were used to determine the impact of technology to answer research question number four: To what extent does technology impact the perceived success of the mentorship relationship? In order to formulate the result, participants' responses to survey questions number six and ten, and survey questions number thirteen and seventeen respectively. [Table 1](#) represents the correlation between survey questions and research questions.

A quantitative data analysis was conducted running the data through a multiple regression model utilizing JASP statistical software. This quantitative analysis is used to "predict the value of a variable based on the value of two or more other variables" (Laerd Statistics, 2018, para. 1). Using the multiple regression model, quantitative data for independent variables was assigned an ordinal value and then was compared against the dependent variable of mentorship satisfaction in order to determine significance.

FINDINGS

Criteria Used to Establish Mentorship Relationship Between a New Superintendent and an Experienced Superintendent

Research question one investigated how mentors and mentees were paired. This research question examined both formal and informal mentorship relationships. The survey question provided respondents with choices as well as the option to type in a response if it was not listed. When concerning formal mentorship relationships, eight (42.1%) respondents reported being matched with their mentor because that person had an increased level of experience as a superintendent. Six (31.6%) respondents

reported they were paired because the mentor was close to their school district, while four (21.1%) reported that they were matched due to the school districts having similar demographics. Three (15.8%) respondents reported the availability of a person to be their mentor as the criteria for pairing, while three (15.8%) were unsure how they were matched with their mentor. Two (10.5%) respondents reported being paired with their formal mentor because they had previous experience with that individual, and one (5.3%) respondent reported they were paired with their mentor by a search consultant. [Table 2](#) represents the criteria used to establish formal mentorship pairings.

Extent that Mentor Characteristics Impacted the Superintendent Mentee's Perceived Success of the Mentorship Relationship

Research question two investigated the extent to which mentor characteristics impacted the mentee's perceived success of the mentorship relationship. This data were obtained by comparing respondents' rating of their satisfaction of the mentorship relationship on a seven-point Likert scale against their rating of mentor characteristics on a five-point Likert scale. The initial test that was analyzed using all mentor characteristics did not produce significant results due to a high degree of multicollinearity amongst the predictors.

In order to make the information more significant, the analysis was run six times while removing variables to attempt to reduce multicollinearity amongst predictors and lower the probability level (p). The test (Model 2) that produced the best values in those areas required the removal of the following four variables: similar district demographics, same gender, similar age, and previous interactions. This test maintained almost equal R (0.738) and R^2 (0.545) values, while increasing the adjusted R^2 value to 0.370, which signifies a reduction in multicollinearity amongst predictors. The probability level (p) also registered at a significant level (0.046). This revised test suggests variables that produce more significant results. The results of the test summary for all variables are shown in [Table 3](#).

Table 3. Model 2 Summary: Formal

Model	R	R^2	Adjusted R^2
2	0.738	0.545	0.370
ANOVA			
Model	F	p	
Regression	3.114	0.046	

The data on test model 2 suggests a significant result for one characteristic; *Leadership/Disposition Qualities* is a strong predictor of mentee satisfaction with the mentorship program (1.097), has a high level of probability (0.007) and the most significant relationship (1.668) with the mentee's satisfaction with the mentorship program. Although *Availability* is the next highest relationship (0.632) followed by *Geographic Proximity* (0.324), both characteristics do not have a high level of probability (0.089, 0.214 respectively) and are not strong predictors of satisfaction (0.562, 0.343 respectively) which would rule them not significant results. There were two characteristics in this model that suggested a negative relationship: *Ability to provide feedback* (-0.724) and *Years of Experience* (-1.454). *Years of Experience* produced significant results, as it is a strong predictor of mentee satisfaction with the mentorship program (-0.880) with a high level of probability (0.007) while *Ability to Provide Feedback* did not produce significant results because it did not have a strong predictor of satisfaction (-0.629) or high level of probability (0.150). The results of the test summary for all variables are shown in Table 4.

Barriers Experienced in Completing Mentorship Program Tasks or Mentorship Relation Activities

Research question three investigated what barriers mentee experienced in completed mentorship program tasks or activities. Out of the 19 respondents, 10 (52.6%) reported that either their mentor or themselves did not have enough time to complete mentorship tasks. Four (21.1%) respondents reported that the distance between school districts prevented them from participating in mentorship activities, and two (10.5%) respondents reported that when they did participate in mentorship activities, they were unsure of what questions they should ask. Translating the mentorship lessons into practice, adverse weather conditions, and the lack of one on one time were all three mentioned by one (5.3%) respondents. Table 5 represents the barriers experienced in formal mentorships.

Extent that Technology Impacts the Perceived Success of the Mentorship Relationship

Frequency information was gathered through the survey about what contemporary technology was used throughout the mentorship relationship. Email was used by 19 (100%) of respondents that had taken part in a formal mentorship program, and 16 (84.2%) reported also using text messaging. Audio/Visual recordings were used by four (21.1%) respondents. Video conferencing (Face-time, Skype, Zoom, etc.), shared real-time documents (Google docs, Microsoft OneNote, etc.), online learning platforms (Google classroom, Schoology, Blackboard, etc.), and personal phone calls were all reported by two (10.5%) respondents for each criterion. One (5.3%) respondents reported using social media, and another one (5.3%) reported using conference phone calls. Table 6 represents the technology used in formal mentorship programs.

DISCUSSION

To investigate the question of how mentorship pairings were established the survey participants were asked to check all choices that applied and were also given the opportunity to write in an answer. Results from this survey question matched current practices of attempting to match new superintendents with those who had been serving as a superintendent for a number of years, as well as matching new superintendents with available mentors who are geographically close to the new superintendent's school district practice (R. Monson, personal communication, May 13, 2019). These practices are supported by Brandon et al. (2014) as these researchers found that "close geographic proximity is one of the most important factors identified for a successful mentoring relationship" (p. 163). Other responses for this question indicated that mentees did not know how they were paired with their mentors.

Another focus of this study was to examine how the mentor's characteristics had on a mentee's satisfaction of the mentorship program. Survey participants were asked to rate nine characteristics in regard to the degree in which their mentor possessed each characteristic. When the data was run through JASP statistical program, it

Table 4. Model 2 Coefficients

Characteristics	<i>B</i>	SE <i>B</i>	β	<i>t</i>	<i>p</i>
Experience	-1.454	0.458	-0.880	-3.172	0.007
Availability	0.632	0.344	0.562	1.836	0.089
Feedback	-0.724	0.473	-0.629	-1.530	0.150
Leadership	1.668	0.523	1.097	3.188	0.007
Proximity	0.324	0.248	0.343	1.307	0.214

was determined that the number of characteristics used were too many to produce significant results due to the amount of overlap the characteristics had as a predictor to mentee satisfaction with the mentorship program. To solve this, six tests were run in which a different combination of characteristics were used for each test to determine what characteristics had the strongest relationship with mentee's satisfaction with the mentorship program.

The strongest positive relationships between characteristics and satisfaction with the mentorship program were *Leadership/Disposition Qualities* and *Availability*. Leadership and disposition qualities were valued by mentees. Mentees shared how they strived to emulate their mentor, valued their mentor, and viewed them as someone they could learn from, which aligns with the theory of authentic leadership (George, 2003; Tharpe, 2017).

The characteristic of *Availability* was also emphasized. Investing the time necessary to establish a trusting relationship is important, as Harmeier (2016) reported that "mentees emphasized that they needed a trustworthy, experienced person with no conflicting interests in which they could confide in" (pp. 159-160). *Availability* can also be interpreted as how easily a mentee can contact and interact with their mentor. Often, mentees most valuable reasons for participating in a mentorship is the ability to converse with and experienced mentor when help is needed (Augustine-Shaw, 2016).

A few mentor characteristics registered a negative relationship with mentee's satisfaction with the formal mentorship program. *Years of Experience* had a strong negative relationship, which contrasts to the most common method of pairing mentees and mentors. The rural, Midwest state in this study uses years of experience as a criterion for selecting superintendent mentors, as new superintendents in the mentor program are matched with mentors through the availability of experienced superintendents with similar-sized districts in close proximity to the mentees (R. Monson, personal communication, May 13, 2019).

The analysis of the mentor characteristic of *Ability to Provide Feedback* also suggested a negative relationship to the mentees' perceived satisfaction with the formal mentorship program. While this analysis is counter intuitive to the understanding that quality feedback is es-

sential for learning (Hattie, 2012; Sherman, 2019), there are some considerations specific to this study that may help understand the characteristic's negative relationship. Although the characteristic did suggest a negative relationship (-0.724), it did not have a strong predictor of satisfaction (-0.629) or high level of probability (0.150) which indicates it is not a statistically significant finding.

One possibility to explain the negative relationship is the generational differences younger mentees and more experienced veteran superintendents possessed which impacts the use of feedback (Brown, 2018). Copeland and Calhoun (2014) note that having a mentor with similar outlook and character can prove to be key to the relationship, which could mean that mentees and mentors from different generations may have had different preferred methods of communication, different world views, or less shared experiences in which to allow their professional relationship to develop. If that relationship was not established (Janesko, 2020), quality feedback may not have been as readily provided in comparison to mentorships in which mentees and mentors could openly communicate. Another point of view could be offered in that current veteran superintendent mentors did not receive a formalized mentorship experience (Harmeier, 2016), and therefore do not recognize the need or value a structured experience to new superintendents.

Survey participants were provided a checklist of barriers that they may have experienced in attempting to complete mentorship activities or tasks and were also provided the opportunity to write in responses. The most common response by far was the *Lack of Time*. This was presented as both mentee's time availability as well as mentor's time availability. Committing to time for mentorship activities is important, as Gafni-Lachter and Ruland (2018) demonstrated that mentees were more comfortable when they had the opportunity to get to know mentors and form a connection with one another. The vast distances between some of the rural school districts can require hours of travel time in which either the mentor or mentee would not be able to attend to their assigned responsibilities. This factor could have also been conveyed in the next most common barrier listed, which was *Geographic Proximity*, even though *Geographic Proximity* is also one of the main criteria used to pair mentees with mentors.

Table 5. Barriers Experienced in Formal Mentorship

Criteria	<i>n</i>	%
Lack of Time	10	52.6
Geographic Proximity	4	21.1
Not Knowing What to Ask	2	10.5
Translating Mentorship into Practice	1	5.3
Weather	1	5.3
Lack of One on One Time	1	5.3

The final question considered in this study was the effect that technology had on mentee's satisfaction of mentorship programs. The data obtained through this question was so one sided, that statistical conclusions could not be made. For example, 100% of participants used email, 84% used text messaging, and most of the other technologies were only used only by 5-10% of respondents. Although statistical significance could not be achieved, frequency data were obtained and can provide some insight on what technology is and is not being used. It is to be expected that all participants used email, which is the standard for communication in modern professional capacities. The high level of text messaging being utilized would suggest that mentors and mentees are establishing comfortable relationships and therefore are bypassing more formal forms of communication in preference for informal methods such as text messaging. Text messaging also allows participants to send quick questions or comments to one another when they are away from a computer.

CONCLUSIONS AND RECOMMENDATIONS

The state's department of education where the study was conducted currently provides a substantial mentorship program for teachers. This formal mentorship program trains mentors, provides a framework around best practices, and follows the NELP standards for guidance and structure. Unfortunately, the states' department of education does not provide mentorship opportunities for superintendents, but rather allows the state's Associated School Board to manage that program. The Associated School Board is as a non-profit organization that provides services and support to local school districts. The state's department of education should invest resources into a formal superintendent program and provide a framework which addresses professional standards for mentors to follow to provide a quality mentorship program for new superintendents in the state.

In order to have the ability to mentor another superintendent, an individual must have experience so they can provide guidance and support to the new superintendent. Experience is one of the essential qualifications

to be a mentor. Another important factor in mentorship is the ability to interact and converse, which would make assigning mentors based on geographic proximity a common practice done to provide the highest opportunity for mentor and mentee interactions. This study identifies those two criteria as the most common methods of pairing new superintendents with mentors (geographical location and experience), but this study suggests that other mentor characteristics have a higher probability to produce a successful mentorship experience.

Based on the results of this study, *Leadership and Disposition Qualities* as well as *Availability* are the most important mentor characteristics, and organizations that provide formal mentorship programs should identify individuals who have strong leadership and disposition qualities and are at a point in their career in which they can provide meaningful time to the mentorship task. This suggestion may prove difficult in rural areas due to the geographic distances between mentors with such characteristics and new superintendents. This element may be addressed by employing contemporary technologies that are not currently being utilized by superintendent mentorship programs.

While email and text messaging were frequently used by participants in this study, much understanding from interactions is obtained through body language, speech tone, and dialogue. This study suggested that other technologies were not utilized by more than one or two participants which can be seen as a missed opportunity, especially when considering the barriers that mentees reported experiencing with the mentorship program. Video conferencing is perhaps the most logical tool that could be utilized to remove barriers for mentorships. Video conferencing tools such as Facetime, Skype, Zoom, and others have changed the way that people interact with each other. Not too long ago, large expensive set-ups were required in order for people to communicate while seeing each other over long distances. Contemporary technology has put that capability on mobile phones in our pockets, or easily accessible with additional features on laptops or desktop computers. Other mentorship programs such as those utilized by teachers, have recently incorporated video conferencing tools in order to successfully participate in mentorship activities

Table 6. Technology Used in Formal Mentorship

Criteria	<i>n</i>	%
Email	19	100.0
Text Messaging	16	84.2
Audio/Visual Recordings	4	21.1
Video Conferencing	2	10.5
Shared, Real-Time Documents	2	10.5
Online Learning Platforms	2	10.5
Personal Phone Calls	2	10.5
Social Media	1	5.3
Phone Conference Calls	1	5.3

(Bang, 2013; Cinkara & Arslan, 2017; Dorner & Kumar, 2017; Kovalchuck & Vorotnykova, 2017; Legler, 2017; Lord & Coninx, 2012; Suk Hwang & Vrongistinos, 2012; Wortmann et al., 2008). Employing these tools has the capability of erasing distances between superintendents, which could lead to more frequent *face-to-face* meetings without consuming excessive time for travel.

LIMITATIONS AND AREAS FOR FURTHER STUDY

This study was conducted in a rural, Midwestern state that has a small population. Due to the population of the state, the lack of requirement for formal mentorship participation, and low number of participants in the formal mentorship program available, the sample for this study was also small. Out of the 147 superintendents contacted to participate in the study, 73 participated. Although almost 50% of the superintendents contacted participated in the survey, only 19 superintendents reported that they participated in a formal mentorship program. This small sample size does not provide a substantial data pool in which to draw significant conclusions. This study should be reproduced yearly within the formal mentorship program to gain data over the course of multiple program cycles, or in a larger area consisting of more participants of formal mentor programs.

There also appeared to be the issue that respondents were not critical of their mentor's characteristics, or their satisfaction with the program. No respondent rated their satisfaction lower than a four out of seven, which did not provide data that could be compared against those that were satisfied and those that were not. This study could be altered to require respondents to rate characteristics in order to reduce multicollinearity amongst predictors and produce more significant results.

An important area for further research is to identify the different needs between rural superintendents and urban superintendents. Assuming the needs of rural superintendents are different than urban superintendents, further research is needed to address their different needs.



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APPENDIX A

Survey Matrix

Question Content	Years	District Name	District Size	Formal Mentorship	Pairing Criteria	Program Satisfaction	Mentor Characteristics	Pairing Satisfaction	Program Challenges	Modern Technologies	Informal Mentorship	Mentor Selection	Mentorship satisfaction	Mentor Characteristics	Pairing Satisfaction	Mentorship Challenges	Moder Technologies
Question Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Matrix of Literature and Research Informing Survey Questions																	
Augustine-Shaw & Funk, 2013	X	X	X	X	X	X	X	X	X	X			X	X			
Augustine-Shaw & Hachiya, 2017	X				X	X	X			X			X	X			
Brown, 2018	X			X		X	X	X	X	X	X	X	X	X	X	X	X
Buchanan, 2013	X	X	X	X	X												
Bynum, 2015				X	X						X	X					
Casey, Clark, & Gould, 2018				X	X				X	X							
Moore, 2012	X		X	X	X	X	X	X	X		X	X	X	X	X	X	X
Parson, 2016			X								X						
Promisee-Bynum, 2010				X		X	X	X	X		X		X	X	X	X	

APPENDIX B**Superintendent Survey Questionnaire**

Demographics

1. Number of years as a superintendent
2. Current School District Name
3. Current School District Enrollment

Mentorship Activities

4. Have you participated in a formal mentorship program?
5. How was this mentorship pairing established?
 - a. Mentor geographic proximity
 - b. Mentor Experience
 - c. Similar district demographics
 - d. Mentor availability
 - e. I don't know
 - f. Other
6. On a scale of 1-7, how satisfied with the mentorship program are you?
7. To what extent did your mentor possess the following characteristics:
 - a. Geographic Proximity
 - b. Years of experience
 - c. Similar district demographics
 - d. Same gender
 - e. Availability
 - f. Ability to provide feedback
 - g. Similar age
 - h. Previous interactions/familiarity
 - i. Leadership/disposition qualities
8. Do you feel the mentor pairing was a good fit?
9. What were some challenges experienced in the mentorship?
10. What modern technologies were used in the mentorship?
 - a. Email
 - b. Text messaging
 - c. Video conference (facetime, Skype, Zoom, etc.)
 - d. Shared, real-time documents (google.docs, etc.)
 - e. Online learning platforms (Google Classroom, Schoology, etc.)
 - f. Social Media (Facebook, Twitter, Instagram, Snapchat, etc.)
 - g. Audio or video recorded messages/communications
11. Have you participated in an informal mentorship relationship?
12. How was this mentorship pairing established?
 - a. Third party introduction
 - b. Previous experience with mentor
 - c. Mentee initiated introductory contact
 - d. Other
13. On a scale of 1-7, how satisfied with the mentorship relationship are you?
14. To what extent did your mentor possess the following characteristics:
 - a. Geographic Proximity
 - b. Years of experience
 - c. Similar district demographics
 - d. Same gender
 - e. Availability

- f. Ability to provide feedback
 - g. Similar age
 - h. Previous interactions/familiarity
 - i. Leadership/disposition qualities
15. Do you feel the mentor pairing was a good fit?
16. What were some challenges experienced in the mentorship?
17. What modern technologies were used in the mentorship?
- a. Email
 - b. Text messaging
 - c. Video conference (facetime, Skype, Zoom, etc.)
 - d. Shared, real-time documents (google.docs, etc.)
 - e. Online learning platforms (Google Classroom, Schoology, etc.)
 - f. Social Media (Facebook, Twitter, Instagram, Snapchat, etc.)
 - g. Audio or video recorded messages/communications