The Importance of Pairings in Mentorship Programs

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Abstract

This study examined pairing preferences of participants in a statewide new teacher mentor program. Participants self-identified the importance of factors such as teaching the same or different content area, same or different grade span, same or different building, and having similar or different personalities. Since the study was impacted by the transition to remote learning during the COVID-19 pandemic, preferences for types of meetings for mentoring and successful remote mentoring strategies were studied as well. There was a significant positive correlation for mentors who were at a different location from their new teacher and the mentor's preference for a combination of virtual and face-to-face meeting. There was a significant negative correlation for mentors who were at a different location from their new teacher and the mentor's preference for face-to-face meetings. Findings also indicated a 99% retention rate for new teachers who participated in this two-year mentoring program.

Keywords: mentoring, new teachers, COVID-19 teacher impact

Introduction

Mentoring is an important component in many professions for the well-being, continuity, and success of the organization. In the field of education, where school budgets are usually stretched thin, retaining teachers is essential for not only providing cohesive instruction but also for reducing recruitment and training costs for new teachers. Providing mentoring is especially important in the teaching profession because new teachers may find themselves isolated in their classrooms with limited time to develop collegial relationships and model the best teaching practices of their peers. In fact, in many rural areas, teachers may find themselves in a school with no colleagues who are teaching similar grade levels or content.

Given the recent global pandemic, retaining teachers has taken on an even greater sense of urgency. A significant factor negatively impacting schools today is the increasing attrition rate for new teachers. In a seminal study on teacher retention, Ingersoll (2003) found that 40-50% of teachers leave the profession within the first five years of employment. A recent study reported that in the United Kingdom, Europe, and the United States, 15-50% of newly hired teachers leave within the first five years (Whalen, Majocha, & Van Nuland, 2019). Lehman (2017) reported that in 1998, the average teacher had 15 years teaching experience, but by 2008, it dropped to one-year of experience. Gareis and Nussbaum-Beach (2007) described this obstacle by stating, "With nearly half of all new teachers leaving the classroom within 5 years, schools are faced with the challenge of

retaining early-career teachers while simultaneously providing them with the support they need to develop into effective professionals" (p. 227).

A related factor affecting new teacher retention is the lack of overlap between new and experienced teachers. As experienced teachers leave the profession, some new teachers are left without colleagues who can serve as mentors. The relationship between new teachers and mentors is mutually beneficial; Lehman (2017) noted that not only are new teachers seeking out positive reinforcement, but experienced teachers are seeking validation as well. One program that offers support for both new teachers and experienced teachers is a structured statewide mentoring program.

In Alaska, Adams and Woods (2015) reported that the state mentoring program realized an increase in teacher retention from an average of 67% to an average of 77% over a six-year period among new teachers who participated in the mentoring program. Similarly, a 2019 Canadian study on mentoring programs concluded, "The evidence from this study through the data findings emphasizes the need to develop a process for mentorship to increase retention rates for all early career teachers while navigating and building capacity leading to success for all within their schools" (Whalen et al., 2019, p. 603).

When examining mentoring programs, it is important to consider the type and structure of the program that might be most effective. A study conducted in Australia emphasized the difficulties that can arise when new teachers and mentors are mismatched by disciplines and levels of education (Southcott, Marangiao, Rady, & Gindidis, 2020). Another recent study evaluated the effectiveness of mentoring programs taking into consideration the increased professional demands on teachers during a pandemic (Albert, 2020). This study focused on the reasons a mentoring program failed, such as lack of training, scheduling issues, and the demands of the mentoring program. With growing demands placed on new teachers, it is imperative to establish effective mentoring programs. Alternatively, a 2021 study identified 14 out of 23 mentoring practices that were able to predict new teachers staying in the same teaching assignment for a second year (Maready et al., 2021). Furthermore, Maready et al. (2021) found seven practices that predicted new teacher retention into the second year and the fifth year of teaching: assignment of a mentor in the first year, mentor who taught the same subject, frequency of supports in classroom discipline, frequency of supports in technology use, frequency of supports in selecting and adapting curriculum, support improved classroom management, and support improved variety of instructional methods.

Ideally, every new teacher would have a mentor available who teaches similar content in a similar grade level and with a compatible personality. In other related professions, such as psychology, one research study discovered the importance of matching and commitment to the mentoring relationship (Chao, 2009). In another study, specific to education, Lozinak (2016) found that mentee/mentor pairings were important to the participants. Their findings indicated that 74% of mentors reported that an understanding of the mentoring process was important, while 94% identified teaching in the same school as an important factor, 82% reported the same schedule as an important factor, while only 52% identified the same teaching style as an important factor. Additionally, Lozinak (2016) noted mentees, mentors, former mentees, and administrators all stressed the importance of matching mentors and mentees in the same building. Former mentees, mentors, and administrators noted that pairs should be, at minimum, similar in grade or content area. According to Weimer (2020), past practices such as selecting mentors based on factors such as high regard, seniority, convenience, or on a rotational basis have proven to be ineffective and inefficient. Weimer (2020) also recommended that the mentor selection process should be aligned with the vision, purpose, and goals of the school district's mentoring program.

Rural states, such as the one in this current study, face some unique challenges. Vast physical distances existing between one school district and another along with small school sizes that dictate a smaller teaching staff can impact the effectiveness of mentoring programs. However, there are ways to overcome these difficulties. One method is online coaching and e-mentoring. In rural states like Kansas, online mentoring programs seem to fill an important need (Sawchuk, 2013). The New Teacher Center has been involved with E-Mentoring for new teachers since 2002 and was instrumental in facilitating the mentoring program in Kansas. Another study focusing on virtual coaching for new teachers identified that "coaching can provide new teachers with embedded supports directly tied to their classrooms and teaching practices and can be embedded within mentoring programs" (Israel, Carnahan, Synder, & Williamson, 2012, p. 197). Gareis and Nussbaum-Beach (2007) noted that "online mentoring expands traditional new-teacher support by bringing novice and expert educators together in Web-based professional learning communities" (p. 231). Darling-Hammond and Hyler (2020) described supporting new teachers through mentoring as one of the most important things that policymakers can do as schools continue to navigate the COVID-19 pandemic.

The COVID-19 pandemic increased the need for various types of mentoring programs for beginning teachers. Overnight, many schools transitioned to remote learning. Many beginning teachers found themselves more isolated and alone. Barnhart (2020) addressed how this shift resulted in "crisis teaching" and a common sentiment among all teachers that they were relegated to a feeling of being new teachers all over again. However, Barnhart (2020) also noted that new teachers may have some advantages as digital natives over mentors, and likely have more experience using technology to connect with others and are more likely to experiment. Two unlikely benefits of the pandemic were the ability to have more time to innovate and the equal footing of both parties, beginning teacher and mentor, when they both became novice distance teachers. According to Barnhart (2020):

> The drastically different teaching context created by the pandemic demanded a willingness to try different teaching approaches. Many of the successes revealed to me in my work with teachers over the past few months resulted from mentor/mentee pairs collaborating as peers to solve problems (p. 127-128).

New teachers and their mentors who were not in the same location during the pandemic needed to find ways to continue the mentoring relationship. Although the following study reported on the difficulties for medical students, Thampy, Ramani, McKlimm, and Nadarajah (2020) found that virtual mentoring benefitted participants by providing a means to connect geographically distant mentors and mentees. Gareis and Nussbaum-Beach (2007) explored the benefits of online mentoring and concluded that it was a viable method for supporting new teachers. In their findings, they were pleased to discover that many of the important components of effective face-to-face mentoring, such as modeling, questioning, and prompting reflection, were evident in online mentoring (Gareis & Nussbaum-Beach, 2007). In addition, the authors identified that other important components of mentoring, such as developing supportive professional relationships, were evident in the online mentoring as well (Gareis & Nussbaum-Beach, 2007).

The Study

The purpose of this study was to examine the importance of matching new teachers and mentors in a meaningful and purposeful way by location, content area, and grade span. Additionally, the researchers aimed to examine the effects of COVID-19 on a statewide mentoring program. Finally, the retention rate of the new teachers was calculated at the end of the two-year participation period. The authors developed the following research questions:

RQ1. What are the overall pairing preferences and perceptions identified by new teachers and mentors regarding the same building, same district, same content, similar grade spans, and personalities?

RQ2. How did COVID-19 impact preferred meeting formats?

RQ3. What strategies did mentors use to support new teachers during mandatory school closings that resulted from COVID-19?

RQ4. What is the retention percentage of new teachers who participated in the 2-year mentor program?

Methods

Participants

The selection of participants for the statewide mentor program was established in a previously published research study (Schwan, Wold, Moon, Neville, & Outka, 2020) and was duplicated in the current study. The participants were first- or second-year teachers and experienced teacher mentors who participated in a statewide mentoring program in a rural, Midwestern state.

Participants in this study included a sample group of 217 new teachers and 114 mentor teachers who applied and were selected to participate in a statewide mentoring program during the 2019-2020 school year. The purposes of the statewide mentoring program were: 1) direct classroom observation and consultation; 2) assistance in instructional planning and preparation; 3) support in implementation and delivery of classroom instruction; and 4) other assistance intended to enhance the professional performance and development of the beginning teacher. Mentors selected for participation in the statewide mentoring program were required to have a minimum of five years of teaching experience, one of which was within the last seven years in a school or other education-related field, and to have a valid teaching certificate. New teachers were required to be within the first two years of teaching. Upon selection, mentors were matched with new teachers based on the following factors: geographic location, same building or district, job-alike position, or administrator request. Furthermore, participants of this study elected to enroll in a course for college credit and submit responses to the researchers' multiple choice and open-ended questions that were required for course completion. Because survey participation was required for course credit, the participation rate was 100%.

Program requirements included a commitment to a two-year formal mentoring relationship, as well as the following yearly requirements: participation in a one-day kickoff event for mentors and their new teachers, participation in a one-day mentor training event for mentors, participation in three webinar trainings for mentors, attendance at a two-day culminating mentor academy event for both mentors and new teachers, and participation in a minimum of 34 mentoring

contact hours each year. The statewide mentoring program funded travel costs including transportation, meals, and lodging for mentors and new teachers to attend the mentor training, kick off events, and the mentor academy. Mentors and new teacher partners who worked in different cities were also provided with travel costs for up to four round trip visits to each other. Additionally, mentors were provided a $1,500 stipend for each year of service as a mentor. Through a state department of education collaboration, both mentors and new teachers who successfully completed two years of the mentor program and all requirements herein were granted automatic renewal of their state teaching certificates.

The researchers, in conjunction with the statewide mentoring program coordinators, developed the survey instrument to drive future mentor program improvements. Mentor and new teacher surveys contained 13 questions total, eight of which were used for this study. Multiple-choice questions were used to gather demographic data and to allow participants to self-identify their mentor pairing descriptions, as well as to indicate their preferences in mentor pairings and meeting formats. Open-ended questions were used for participants to identify specific mentoring strategies used. Surveys were administered electronically to mentors and new teachers participating in the formal statewide mentoring program during the 2019-2020 school year and were also enrolled in a university course for graduate credit. Participant responses were collected at the end of the yearly mentoring experience. All participant surveys were completed in their entirety and used in this study. A similar procedure was followed in a research study conducted with mentors and new teachers enrolled in a statewide mentoring program during the 2018-2019 school year (Schwan, Wold, Moon, Neville & Outka, 2020).

Procedure

The survey was administered as part of a university graduate course offered in conjunction with a statewide mentoring program. The survey contained demographic questions, information on the actual pairing arrangements of the participants, and perceptions of the importance of various factors, and preferences of communication for mentoring programs.

Retention information on the new teachers who completed the two-year mentor program at the end of the 2019-2020 school year was gathered in the fall of 2020-2021 school year. Current teaching assignment information was obtained from the state department of education teacher certification website and/or school websites.

Fidelity of Implementation

Hastie and Casey (2014) assert that researchers need to provide: 1) a rich description of the curricular elements of the study, 2) a detailed explanation of the method implemented, and 3) a detailed description of the context so that readers acquire an exact and comprehensive understanding of the rationale for the research design and the outcomes desired and obtained. When schools transitioned to a remote learning format due to COVID-19, the researchers needed to examine data collection procedures to protect the fidelity and continuity of the study. The goal was to research mentor and new teacher pairing preferences and the efficacy of a statewide mentoring program. When the expected format of the mentoring program shifted, the researchers sought to understand how the participants facilitated the mentoring program in the COVID-19 climate. We discovered the meetings were held virtually, safely distanced face-to-face, or a combination or both. The researchers then sought to investigate the participants' meeting preferences.

Data Analysis

Three hundred thirty-one surveys were collected, and researchers analyzed responses from new teachers and mentors to determine how their pairings impacted their perceptions of how new teachers and mentors should be paired in a mentoring program.

Because the researchers were looking to understand how much difference existed between the expected and the actual distribution, data analysis was conducted using Pearson's Chi-squared tests. A Chi-square test of independence is appropriate to use when comparing the categorically coded data collected with the frequencies that one would expect to get by chance alone (Urdan, 2005). Although results from the analysis did not indicate statistically significant values, results are reported as higher than or lower than expected distribution.

The Chi-square tests were utilized to compare perceptions of the new teachers and mentors on the factors of same building, same content, same district, same grade span, combination of virtual and face-to-face mentoring, face-to-face mentoring, no preference, or virtual mentoring.

Results

Pairing Preferences of New Teachers and Mentors

General Pairing Preferences

New teachers were asked to select from five options (content, building, grade span, location, and personality) to identify the most important overall factor and second most important overall factor for pairing mentors with new teachers. New teachers said content was the most important factor (34.6%) and the second most important factor was the same building (32.7%). Mentors were asked to select from five options (content, building, grade span, location, and personality) to identify the most important overall factor and second most important overall factor for pairing mentors with new teachers. Mentors said the same building was the most important factor (41.2%) and the second most important was similar content (34.2%).

Location Where Practicing

New teachers. When analyzing the most important overall factor for mentor pairings, there were differences in new teacher pairing preferences based on location. Location where practicing referred to whether the mentor and new teacher pairings were teaching in the same building, the same school district, or a different school district. New teachers who were paired with mentors in different districts self-reported that being matched with a mentor who shares the same content area was most important (46.4%) and being matched with a mentor who taught within the same grade span was the second most important factor (31.9%). New teachers who were paired with mentors in the same district self-reported that being in the same building was the most important factor (40.6%) and being matched with a mentor who was teaching within the same content area was the second most important factor (25.2%).

Pearson's Chi Square test results showed higher than expected proportions for new teachers who are at a different location from their mentor and the preference to have a mentor who teaches in the same content or grade spans. There was a significantly lower than expected proportion for new teachers who are at a different location from their mentor and the preference to work in the

same building. Additionally, there were higher than expected proportions for new teachers who teach in the same location as their mentor and the same location as their mentor and the preference to have a mentor with a similar personality.

Mentors. When analyzing the most important overall factor when considering pairings, there were differences in mentor preferences as they pertain to location. Mentors who were paired with new teachers in a different district self-reported that being matched with a new teacher who shares the same content area is most important (70.0%) and being paired with a new teacher having a similar personality was the second most important factor (30.0%). Mentors who were paired with new teachers in the same district self-reported that mentoring a new teacher in the same building was the most important factor (44.2%) and being paired with a new teacher within the same content area was the second most important factor (31.7%).

Pearson's Chi Square showed higher than expected proportions for mentors who are at a different location from their new teacher and the preference to mentor a new teacher who teaches in the same content area. There were also higher than expected proportions for mentors who are at a different location from their new teacher and the preference to have a new teacher with a similar personality. Data showed lower than expected proportions for mentors who were in the same district as their new teacher and the preference to work in the same building. Additionally, data showed lower than expected proportions for mentors who are at a different location from their new teacher and the preference to have a teacher who teaches the same grade span.

Teaching Assignment

New teachers. When analyzing the most important overall factor when considering pairings, there were differences in new teacher pairing preferences based on teaching assignment. New teachers who had different teaching assignments from their mentors self-reported that pairing mentors with new teachers who teach the same content was the most important pairing consideration (29.3%) and pairing mentors with new teachers who teach the same grade span was the second most important factor (28.0%). New teachers who had the same teaching assignment as their mentor self-reported that pairing mentors with new teachers in the same building was the most important pairing consideration (38.7%) and pairing mentors with new teachers that taught the same content was the second most important factor (26.3%).

Pearson's Chi Square showed higher than expected proportions for new teachers who had a different teaching assignment from their mentors and their identification of pairing mentors with new teachers who teach the same grade spans as the most important pairing consideration. Additionally, there were higher than expected proportions for new teachers who had a different teaching assignment than their mentors and their identification of pairing mentors with new teachers who teach in the same school district was the most important consideration. Similarly, there were higher than expected proportions for new teachers who had a different teaching assignment from their mentors and their identification of pairing mentors with new teachers who have similar personalities as the second most important pairing consideration. Data showed lower than expected proportions for new teachers who had a different teaching assignment than their mentors and their identification of pairing mentors with new teachers who teach in the same building was the most important consideration. Additionally, there were lower than expected proportions for new teachers who had a different teaching assignment than their mentors and their identification of pairing mentors with new teachers who teach in the same building as the second most important consideration.

Results indicated a higher-than-expected proportion for new teachers who had a similar teaching assignment as their mentors and the identification of pairing mentors with new teachers who teach in the same building as the most important consideration. Conversely, there were lower than expected proportions for new teachers who had a similar teaching assignment as their mentors and the identification of pairing mentors with new teachers who teach the same grade spans as the most important consideration. There were also lower than expected proportions for new teachers who had a similar teaching assignment than their mentors and their identification of pairing mentors with new teachers who have similar personalities as the second most important consideration.

Mentors. Mentors were asked to identify the most important consideration when pairing mentors with new teachers. When analyzing the most important overall factor when considering pairings, there were differences in mentor pairing preferences based on teaching assignment. Mentors who had different teaching assignments from their new teachers self-reported that being in the same building was most important (47.1%) and that teaching within the same grade span was the second most important factor (47.1%). Mentors who had the same teaching assignment as their new teacher self-reported that being in the same building was most important (40.2%) and being paired with a new teacher that taught the same content area was the second most important factor (32.0%).

Pearson's Chi Square showed higher than expected proportions for mentors who had a different teaching assignment from their new teachers and the identification of pairing mentors with new teachers who have similar personalities as the most important consideration. Data also showed higher than expected proportions for mentors who had different teaching assignments from their new teacher and their identification of pairing mentors with new teachers who teach the same grade spans as the second most important pairing consideration. Additionally, there were lower than expected proportions for mentors who had a different teaching assignment than their new teacher and their identification of pairing mentors with new teachers who teach in the same district was the second most important consideration.

Preferred Mentoring Format

New teachers. New teachers were asked to identify their preferred mentoring format. When analyzing the preferred mentoring format, there were differences in new teacher preferences based on pairings. New teachers who teach in different districts than their mentors self-reported preferring a combination of face-to-face and virtual meeting formats (49.3%). New teachers who teach in the same district as their mentors self-reported equally preferring a face-to-face meeting format and a combination of face-to-face and virtual meeting format (41.3%). Pearson's Chi Square showed higher than expected proportions for new teachers who taught in a different location from their mentors and the preference to meet face-to-face. Additionally, there were higher than expected proportions for new teachers who teach in the same location as their mentors and their preference to meet face-to-face.

New teachers who teach different content areas than their mentors self-reported preferring a combination of face-to-face and virtual meeting format (42.7%). New teachers who teach the same content area as their mentor self-reported preferring a combination of face-to-face and virtual meeting format (43.9%). There were higher than expected proportions for new teachers who teach different content areas than their mentors and the preference to meet virtually. Additionally, there were lower than expected proportions for new teachers who teach the same content area as their mentors and their preference to meet virtually.

Mentors. Mentors were asked to identify their preferred mentoring format. When analyzing the preferred mentoring format, there were differences in mentor preferences based on pairings. Mentors who teach in different districts than their new teacher self-reported preferring a combination of face-to-face and virtual meeting formats (70.0%). Mentors who teach in the same district as their new teacher self-reported preferring a combination of face-to-face and virtual meeting format (49.0%). Pearson's Chi Square showed higher than expected proportions for mentors who teach in a different location from their new teacher and the preference to meet face-to-face. Additionally, there were lower than expected proportions for mentors who teach in a different location from their new teacher and their preference for a combination of face-to-face and virtual meetings.

Mentors who teach a different content area than their new teacher self-reported preferring a combination of face-to-face and virtual meeting formats (58.8%). Mentors who teach the same content area as their new teacher self-reported preferring a combination of face-to-face and virtual meeting formats (49.5%). Data showed higher than expected proportions for mentors who teach different content areas than their mentees and the preference to meet in a combination of virtually and face-to-face. There were higher than expected proportions for mentors who are at a different location from their new teacher and the mentor's preference for a combination of virtual and face-to-face meeting. Conversely, there were lower than expected proportions for mentors who are at a different location from their new teacher and the mentor's preference for a face-to-face meeting.

Remote Mentoring Strategies

Following the state-mandated school shutdown in March 2020, new teachers and mentors were forced to pivot to virtual mentoring relationships and environments to meet the mentoring program requirements. The new teachers and mentors were compelled to develop and implement their own strategies for maintaining their mentor relationship. New teachers and mentors were asked to elaborate on the type of support mentors provided to new teachers in the areas of providing continued instruction, providing support in collaborating with colleagues and continuing professional relationships, and providing support in building relationships with students and their families. Below is a sampling of their responses from the open-ended survey questions regarding their use of virtual mentoring strategies and meeting formats.

New Teachers

- "Our district created a distance learning team to plan instruction for students in each subject area and grade level. I was selected to plan ELA activities for 5th graders in our building. My mentor offered to participate in this planning process as needed. We ended up planning most weeks' activities together, sharing ideas and resources as we went along. This collaboration was helpful, especially in figuring out the amount of work students should be given per day" (new teacher participant 12).
- "How to complete SPED paperwork and progress monitoring online" (new teacher participant 39).
- "My mentor showed me how to have students navigate STEMscopes (our online science program) when the servers changed, and students were unable to log in" (new participant 59).
- "My mentor provided me with lesson ideas for art when students may not have access to traditional art supplies at home" (new teacher participant 64).

- "The most useful support was when my mentor walked me through setting up a Doodle calendar so my students can set up one-on-one Zoom sessions with me. This is the single most useful tool I've used in distance learning" (new teacher participant 70).
- "We collaborated to design keyboarding projects. We completed a 'What Music Means to Me' project with all band and choir students. We tested out different online resources like Smart Music and Flipgrid before using them in our classes. We tested out Zoom, so we could complete auditions for our classes. We collaborated to make a plan through Zoom for lettering" (new teacher participant 115).
- My mentor and I discussed the best ways to continue distance learning through Google Classrooms and the best ways to modify assignments. We also discussed the best way to modify assignments/quizzes/tests into online programs, so it self-grades for immediate feedback. We've discussed keeping a healthy mindset through the shutdown and knowing how to keep home/work life somewhat separate. My mentor and I have collaborated on many assignments, trying to make them more "user friendly" and explicit with instruction" (new teacher participant 54).

Mentors

- "I used technology (Zoom, Google classroom) to observe my mentee teaching live lessons and provided feedback" (mentor participant 66).
- "I became a co-teacher and co-taught my mentee's students using Google classroom" (mentor participant 87).
- "My mentee and I created a shared Google folder to share materials and resources back and forth electronically" (mentor participant 44).
- "We created a parent contract, a SMore newsletter, and used Class Dojo to assist my mentee in maintaining contact with parents" (mentor participant 27).
- "Together we created interdisciplinary exploratory projects for our classes to do together virtually during online Genius Hour intervention time" (mentor participant 58).
- "We worked together to use Google classroom to create flex learning time to accommodate the needs of families with limited number of devices and multiple students in the home" (mentor participant 49).
- "We participated in online PD/webinars to learn about virtual learning strategies for the music classroom" (mentor participant 18).

Retention

The current body of literature provided mixed results regarding new teacher retention rates that are impacted by mentoring programs. However, a very recent study identified specific components of mentoring programs that can predict new teacher retention in the same position through year five of teaching (Maready et al., 2021). Several of those factors that relate specifically to this current research study are as follows: assigned a mentor in the first year, mentor who taught the same subject, frequency of support in the classroom, and improved practices due to that support. The findings of this study indicate a new teacher retention rate of 99% after the completion of the two-year-statewide mentoring program. The researchers confirmed retention status of new teachers using the state's public teaching database, which identifies a current teaching assignment. This current study corresponds with the findings in the Maready et al. (2021) study, "The study also

emphasizes the importance of selecting effective mentors, identifying the characteristics of mentors which lead to retention of new teaches, and identified the frequency of mentor supports needed to increase retention rates of new teachers" (p. 96).

Discussion

The purpose of this study was to examine the importance of matching new teachers and mentors in some way, such as location, content area, and grade span. Additionally, the researchers wanted to examine the effects of COVID-19 on a statewide mentoring program. Finally, the retention rate of the new teachers was considered at the end of the two-year participation period.

Pairing Preferences and Perceptions

Analysis results indicate that overall, new teachers and mentors both prefer working with someone in the same location regardless of other factors. In addition, when both new teachers and mentors were unable to be paired with others in the same location, they preferred to be paired with someone who teaches the same content and/or similar grade span. These preferences were to be expected because we would anticipate teachers would prefer the convenience of being paired with someone easily accessible and with similar content knowledge and resources. Data analysis indicated mentors who were at different locations preferred someone with a similar personality. We believe this is because conditions were such that new teachers and mentors did not have naturally occurring work-related interactions and/or opportunities to connect. New teachers and mentors paired from different locations typically met outside of work hours and often in non-work settings; thus, personality preference became an important factor in those situations. Ultimately, both new teachers' and mentors' first preference was to be teaching in the same location, the second preference was the similar content area. Finally, if the new teacher mentor pairings were not at the same location and did not share similar content, personality preference became the important factor. The implications for future mentoring program development are to pair mentors with new teachers who work in the same building. An additional implication is to pair mentors with new teachers who teach the same content area. Not only are these pairing practices beneficial and preferred by new teachers and mentors, similar location and/or content area positively affects new teacher retention (Maready et. al, 2021).

Impact of COVID-19

Data analysis showed both mentors and new teachers overall preferred a combination of face-to-face and virtual meeting formats, regardless of the location or teaching assignments of the mentor pairs. New teachers had higher than expected proportions in their preference for meeting face-to-face, regardless of the location of the mentor pairs. It is to be expected that new teachers would prefer face-to-face meetings in order to build professional relationships with colleagues and develop a network of support during the new teachers' first two years of teaching. However, new teachers who had different teaching assignments than their mentors had higher than expected proportions in their preference to meet virtually. We believe that in these instances, new teachers were not seeking content related support and felt that virtual meetings were sufficient for professional conversations related to general teaching behaviors.

As data suggested strong preference for a combination of both virtual and face-to-face mentoring meetings, regardless of location or teaching assignments, it should be noted that virtual mentoring provided the opportunity for mentor pairs to meet the requirements of the mentor program despite the school closures in March 2020. These virtual meetings also provided additional convenience for mentor pairs who did not teach in the same locations. An implication of this preference for a combination of virtual and face-to-face mentoring meetings is that meeting format does not matter as much as the relationship building and the consistent support for new teachers in the field. With these results in mind, school districts can utilize virtual mentoring practices as part of a successful mentoring program which adds much more flexibility in designing and organizing mentoring programs.

Strategies to Support New Teachers

As previously discussed, the pandemic put both new teachers and mentors on equal footing: remote teaching and learning was new for everyone. Once the decision was made to transition to remote learning, both parties found themselves scrambling to find ways not only to engage their students, but to stay in contact with each other as well to effectively continue the mentor relationship and meet the requirements for completing the program.

A representative sample of new teacher open-ended survey responses were discussed above, and the theme of collaboration with their mentors to plan activities emerged, as many shared resources during the time of remote instruction. Of the seven responses, all seven specifically mentioned words or phrases such as *collaborate*, *walked me through*, *helped me navigate*, *helped me complete*, *provided me with ideas*, and *helped me design*. New teachers reported that they used tools such as Zoom, Google Classrooms, Doodle calendar, Smart Music, Flipgrid, and specific online curriculum materials.

Of the representative sample mentor responses mentioned above, an emerging theme was *working together*. One mentor mentioned using Zoom to observe her new teacher live and provide feedback. Another mentioned that she became a co-teacher and co-taught students using Google Classroom. All of the mentors expressed *working together* in some way to develop materials for students during remote instruction. Mentor teachers reported using tools such as, Zoom, Google Classroom, Class Dojo, and SMore.

Analysis of this data suggests that when new teachers and mentors were faced with challenging circumstances, the relationship became even more critical because new teachers and mentors indicated that they each needed support that the other could provide. Future mentoring programs should ensure that establishing positive relationships is the priority of any mentor program.

Retention

At the end of participation in the two-year mentoring program, the program graduates from our study had a 99% (97 of 98) retention rate; meaning 99% of them remained in the teaching profession in the 2020-2021 school year. Retention is the main reason schools and departments of education invest time and resources in mentoring programs. A significant finding such as the extraordinary high retention rate is an impactful finding that could positively affect the current attrition crisis. The current structure of this particular statewide mentoring program requires a two-

year commitment between mentor and new teacher, which we believe contributed to the high retention rate. Relationships are important and teachers depend on that continuity which was provided through this experience.

The fundamental purpose in establishing this statewide mentoring program was to address teacher retention. Teachers are leaving the profession at an alarming rate. With such a high percentage of retained teachers who participated in the mentoring program, the implication of this finding is extraordinary. Creating a consistent, structured, program with accountability and follow-through for the coordinators of the program, the new teachers, and the mentors could potentially be a significant component to better combat the critical teacher attrition rates all over the country.

Conclusion

The mixed method approach followed in this current study discussed the self-reported participant' preferences regarding components associated with mentor pairings in a statewide mentor program. Both mentors and new teachers preferred similarity in location where practicing and content area. This seems to be paramount to building an effective relationship that simultaneously supports both groups during teaching and learning in a substantially difficult environment.

Our data also indicate that both face-to-face and virtual mentoring strategies are positive avenues for mentoring programs. Overcoming obstacles such as the distance between mentors and new teachers in rural areas and the difficulties caused by the COVID-19 pandemic were important considerations. Furthermore, modeling a mentoring program after this statewide mentoring program two-year model could enable other mentoring programs to achieve improved teacher retention rates among new teachers who participate for more than one year.

Regarding this study and the significance of mentor pairings, participants indicated that location was the most important consideration of the process followed by similar content, similar grade level, and then personality. Our study showed a high percentage of teacher retention for those new teachers who successfully completed the two-year mentoring program.

We believe the structure and organization of this two-year mentoring program led to positive outcomes and relationships, which in turn may have addressed teacher retention. The program facilitators' process of pairing new teachers and mentors led to greater satisfaction that was indicated by their comments and responses to survey questions. On the other hand, the researchers believe structured outcomes and processes are necessary to ensure consistent and fidelity of program implementation. Over 1,000 teachers participated in the statewide mentoring program, which is the most comprehensive and far-reaching educational program in the state to this point. Due to the rural location and sparse populations in some areas in this study, students and teachers from all over the state were impacted and/or affected by this program.

Limitations

One limitation of this study is the inability to control who participated in the program. The participants in this study chose to partake in the university graduate course for credit and perhaps the results were affected as such. In addition, we were not able to control how the mentors were paired, nor were we able to control where the new teachers and mentors were located. The shift from the traditional intended face-to-face model of the mentoring program to the virtual model could be considered a limitation even though we gained valuable information as a result. The current study did not focus on the effect of specific pairings on teacher retention. Future research

focusing on correlation between one of the factors, such as same teaching assignment, and teacher retention may be beneficial.

Implications

Research is limited regarding how much input in the process is optimal for a mutually beneficial and productive mentoring experience (Finkelstein & Poteet, 2007). Therefore, implications for future research would include investigating participants' early involvement in the pairing process of a teacher mentoring program as opposed to an outside entity, like the state department of education, making the pairing decisions.

This study presented the important factors in the mentor/new teacher mentor relationship. A primary lesson learned was that the pairing process should take into consideration the pairing preferences of both new teachers and mentors. Perhaps the relationship could be more productive from the beginning if both participants felt their preferences are considered into the pairing relationship before the experience begins. Factors that influence the potential success of a mentor pairing included 1) location; 2) similar content; 3) similar grade span, and 4) personality. A successful match is more likely when the pairing criterion is a high priority for the new teacher and mentor (Johnson, 2002). In addition, it may be productive to consider the participants' preferred meeting style or modality so that the meetings are mutually beneficial for each party. If all participants are given the opportunity to share their preferences, concerns, and needs prior to the experience, they may be more motivated and committed to the overall process and mentoring relationship. It would be beneficial to study the impact of having both mentors and new teachers identify their preferences in a mentor or new teacher before the mentoring begins and at the conclusion of the mentoring experience.

Overall implications of this study, which was conducted during a global pandemic, lends a unique perspective on new teacher and mentor relationships. The study demonstrated the resilience and innovation of both new teachers and mentors as they transitioned overnight to both remote instruction and remote mentoring without any preparation or training; both parties emphasized how they guided and aided each other through this transition. New teachers need support regardless of the teaching modality, whether remote or in-person. The nature of teaching is so complex that without support from veteran teachers, it is extremely challenging for new educators to confidently fulfill all the roles required of teachers. This study highlights the importance of supportive mentoring relationships for both new teachers and mentors and supports the impact of an intentional statewide mentoring program.

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Appendix A

2019-20 SD Mentor Program Reflection Survey for Mentors

Which of the following best describes your mentoring partnership?
·   My new teacher(s) and I teach in the SAME BUILDING in the SAME DISTRICT.
·   My new teacher(s) and I teach in DIFFERENT BUILDINGS in the SAME DISTRICT.
·   My new teacher(s) and I teach in DIFFERENT DISTRICTS.
·   I am currently retired, but am mentoring a new teacher(s).
·   I am employed by a school district in a role other than teaching and am mentoring a new teacher(s) in the same building or district.
·   I am employed by a school district in a role other than teaching and am mentoring a new teacher(s) in a different district.

Which of the following best describes your mentoring partnership?

·   My new teacher(s) and I have the EXACT SAME positions, for example we both teach third grade or we both teach high school orchestra.
·   My new teacher(s) and I have SIMILAR positions, for example we are both elementary teachers, but I teach K and s/he teaches 4th grade, or we are both PE teachers, but I have HS and s/he has elementary.
·   My new teacher(s) and I have COMPLETELY DIFFERENT positions, for example I teach foreign language and s/he teaches special education.
·   I am currently retired or not teaching, but am mentoring a new teacher(s).

In your opinion, which of the following considerations is MOST important when pairing mentors with new teachers? (select only your MOST important consideration) Mentors should be paired with new teachers who. . .

·   teach in the SAME SCHOOL BUILDING, regardless of content areas or grade levels.
·   teach in the SAME SCHOOL DISTRICT, regardless of content areas or grade levels.
·   teach the SAME OR SIMILAR CONTENT AREAS, even if they do not work in the same building or district.
·   teach the SAME OR SIMILAR GRADE SPANS (like K-2, 3-5, 6-8, 9-12), even if they do not teach in the same building or district.
·   have similar personalities and interests, regardless of content areas/grade levels/building or district.

In your opinion, which of the following considerations is SECOND MOST important when pairing mentors with new teachers? (select only your SECOND MOST important consideration) Mentors should be paired with new teachers who. . .
·   teach in the SAME SCHOOL BUILDING, regardless of content areas or grade levels.
·   teach in the SAME SCHOOL DISTRICT, regardless of content areas or grade levels.
·   teach the SAME OR SIMILAR CONTENT AREAS, even if they do not work in the same building or district.

·   teach the SAME OR SIMILAR GRADE SPANS (like K-2, 3-5, 6-8, 9-12), even if they do not teach in the same building or district.
·   have similar personalities and interests, regardless of content areas/grade levels/building or district.]

Mentors and new teachers could meet face-to-face or virtually (call, text, email, FaceTime, zoom, social media tools, etc.) to meet for the required number of mentoring hours. Please indicate your preference for method of meeting with new teachers.

·   I prefer to meet virtually only.
·   I prefer to meet face-to-face only.
·   I prefer to meet through a combination of virtual and face-to-face meetings.
·   I have no preference in how mentors and new teachers meet.

Virtual mentoring benefited me by (select all that apply):
·   saving time.
·   reduced the amount of driving needed to complete face-to-face meetings.
·   allowing us to share more resources with each other.
·   allowing us to meet more frequently.
·   giving us more flexibility in scheduling our meetings.
·   I DID NOT participate in any virtual mentoring.
·   I DID participate in virtual mentoring but did not experience any of these benefits.

In which of the following areas did you provide support/resources to your new teacher following the school shut down in spring 2020 (select all that apply):

·   I provided support/resources in provided continued instruction to students.
·   I provided support/resources in collaborating with colleagues and continuing professional relationships.
·   I provided support/resources in continuing to build relationships with his/her students and their families.
·   I DID NOT provide support/resources in the above areas.

Please provide specific examples of support/resources you provided on the above topics following the school shut down in spring 2020. If you did not provide support/resources on the above topics, indicate NA in the answer space

Appendix B

2019-20 SD Mentor Program Reflection Survey for New Teachers

Which of the following best describes your mentoring partnership?

·   My mentor and I teach in the SAME BUILDING in the SAME DISTRICT.
·   My mentor and I teach in DIFFERENT BUILDINGS in the SAME DISTRICT.
·   My mentor and I teach in DIFFERENT DISTRICTS.
·   My mentor is a retired teacher.
·   My mentor is employed by a school district in a role other than teaching (like an instructional coach).
·   My mentor works in a different school district in a role other than teaching (like an instructional coach).

Which of the following best describes your mentoring partnership?

·   My mentor and I have the EXACT SAME positions, for example we both teach third grade or we both teach high school orchestra.
·   My mentor and I have SIMILAR positions, for example we are both elementary teachers, but I teach K and s/he teaches 4th grade, or we are both PE teachers, but I have HS and s/he has elementary.
·   My mentor and I have COMPLETELY DIFFERENT positions, for example I teach foreign language and s/he teaches special education.
·   My mentor is a retired teacher.
·   My mentor works in a position other than teaching (like an instructional coach).

In your opinion, which of the following considerations is MOST important when pairing mentors with new teachers? (select only your MOST important consideration) New should be paired with mentors who. . .

·   teach in the SAME SCHOOL BUILDING, regardless of content areas or grade levels.
·   teach in the SAME SCHOOL DISTRICT, regardless of content areas or grade levels.
·   teach the SAME OR SIMILAR CONTENT AREAS, even if they do not work in the same building or district.
·   teach the SAME OR SIMILAR GRADE SPANS (like K-2, 3-5, 6-8, 9-12), even if they do not teach in the same building or district.
·   have similar personalities and interests, regardless of content areas/grade levels/building or district.

In your opinion, which of the following considerations is SECOND MOST important when pairing mentors with new teachers? (select only your SECOND MOST important consideration) New teachers should be paired with mentors who. . .

·   teach in the SAME SCHOOL BUILDING, regardless of content areas or grade levels.
·   teach in the SAME SCHOOL DISTRICT, regardless of content areas or grade levels.

·   teach the SAME OR SIMILAR CONTENT AREAS, even if they do not work in the same building or district.
·   teach the SAME OR SIMILAR GRADE SPANS (like K-2, 3-5, 6-8, 9-12), even if they do not teach in the same building or district.
·   have similar personalities and interests, regardless of content areas/grade levels/building or district.

Mentors and new teachers could meet face-to-face or virtually (call, text, email, FaceTime, zoom, social media tools, etc.) to meet for the required number of mentoring hours. Please indicate your preference for method of meeting with new teachers.

·   I prefer to meet virtually only.
·   I prefer to meet face-to-face only.
·   I prefer to meet through a combination of virtual and face-to-face meetings.
·   I have no preference in how mentors and new teachers meet.

Virtual mentoring benefited me by (select all that apply):
·   saving time.
·   reduced the amount of driving needed to complete face-to-face meetings.
·   allowing us to share more resources with each other.
·   allowing us to meet more frequently.
·   giving us more flexibility in scheduling our meetings.
·   I DID NOT participate in any virtual mentoring.
·   I DID participate in virtual mentoring but did not experience any of these benefits.

In which of the following areas did your mentor provide support/resources to you following the school shut down in spring 2020 (select all that apply):

·   I provided support/resources in provided continued instruction to students.
·   I provided support/resources in collaborating with colleagues and continuing professional relationships.
·   I provided support/resources in continuing to build relationships with his/her students and their families.
·   I DID NOT provide support/resources in the above areas.

Please provide specific examples of support/resources your mentor provided on the above topics following the school shut down in spring 2020. If your mentor did not provide support/resources on the above topics, indicate NA in the answer space.